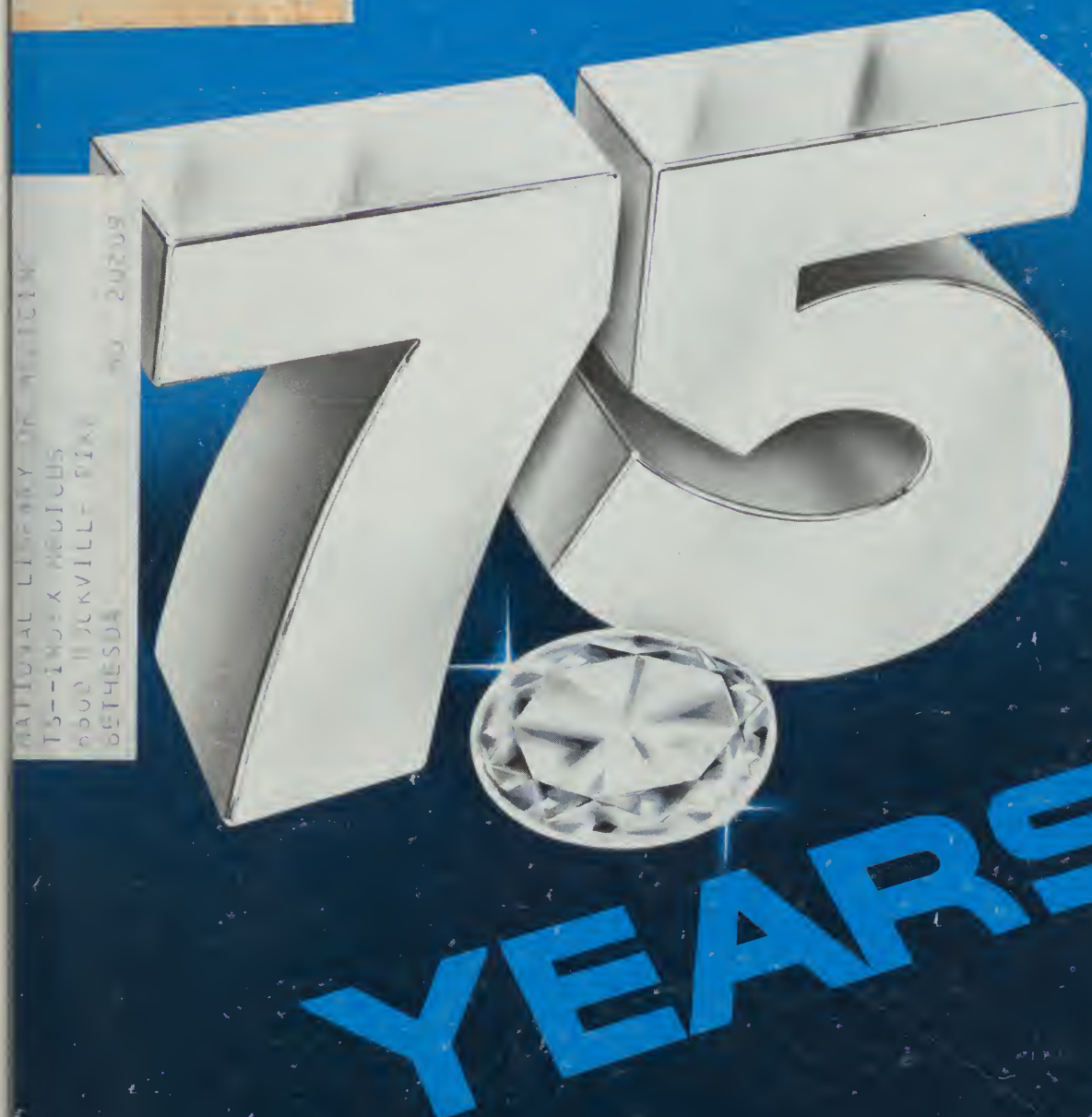
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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

THE INDIANA Medical History Museum, in the Old Pathology Building, is a cooperative endeavor in which the Indiana University School of Medicine, the Indiana Department of Mental Health, and the Indiana Historical Society, in addition to the ISMA, participate. Each has helped substantially. This page of Notes tells of a most remarkable contribution. It is a story which begins with the Medical Center.

Back in 1975 Dean Beering reassigned Miss Priscilla Brown (who was then working at the IUPUI library in Indianapolis) to help with the Museum project. Miss Brown was 65 years old at that time, had had extensive experience with the campus News Bureau, and was very knowledgeable in campus history. Although she had been crippled for life with poliomyelitis as a child, and had reached the age of retirement, she was neither physically nor mentally ready to quit.

Miss Brown took to her new assignment like a duck to water; and during the five years she worked in behalf of the Museum, it was with vigor and enthusiasm. She was happy in her work.

When ice, snow, and freezing weather kept her from driving, she would leave home at an earlier hour, and, aided by her aluminum walking sticks, would get to work by bus. Whatever phase of Indiana's medical history she happened to be engaged in at the time was, to her, the most important thing in the world.

Retirement at age 70 was mandatory for Miss Brown, but she was no more inclined to retirement as 70 approached than she had been at 65. "It's not for me," she said. "We're just getting a good start!"

Miss Brown didn't make it to 70. She suffered a massive heart attack just before the event. As she had wished, she died "while still in harness."



Although her work at the Museum ended more than a year ago, Miss Brown's influence will be felt for quite some time. Shortly after her death we were notified that she had named the Museum in her will, to be the principal recipient of her estate; and about six months ago $90,000 in cash, and about $34,000 in stocks and bonds were delivered. All of this is now on deposit, drawing interest, and it is hoped that this may be the means for establishing a long-term professional curator for the Museum.

Thank you, Priscilla.

R.I.P.

WHAT'S NEW?

HEWLETT-PACKARD has a new non-invasive oxygen monitor that allows the neonatal intensive care staff to monitor both the ambient oxygen and the pO2 values simultaneously. It is a single compact unit and is easier to operate than earlier units. Calibration, which was complicated previously, may be accomplished in the new instrument by a single push-button operation.

THE 3M COMPANY has released a new eight-minute color film to illustrate the proper use of skin stapling techniques. It is based on the Precise stapling system, which provides control and allows for proper apposition and eversion of the wound edges. Surgeons or hospitals may obtain the free film from 3M representatives.

NORTH PENN MANUFACTURING announces a new sunlamp, DERM-A-LITE, for home treatments of psoriasis. Use of the light is to be prescribed by a physician. DERM-A-LITE features protective shields, precision timers and easy mobility.

ORGANON DIAGNOSTICS introduces β-NEOCEPT, a hemagglutination-inhibition pregnancy test which detects hCG levels present in urine at or before the expected menstrual period. It is the most sensitive test available today. The test procedure is simple and requires no sophisticated equipment or heating block.

MIDMARK is introducing a new pediatric examination table that allows the physician to weigh, measure, examine and treat patients all in one location. It is a self-contained treatment center. A recessed pedestal base prevents loss of instruments or toys underneath. The top is 35″ high to eliminate stooping, bending and lifting. Well-arranged storage space is divided so that all accessories may be organized and easily found.

HOECHST-ROUSSEL PHARMACEUTICALS has received FDA approval for marketing of Claforan® (cefotaxime sodium), a member of a new family of antibiotics. It is the first of a new class of cephalosporin antibiotics and is characterized by a combination of safety and broad spectrum of activity. It is highly effective against penicillin-resistant gonorrhea. It is effective in treatment of bone and joint infections.

ALMAR INTERNATIONAL LTD. is marketing the EMERGENCY ESCAPE MASK designed for wear during escape from a conflagration. It allows a person to breath safely for 20 minutes in dense smoke or in an area of toxic fumes. It has been tested by numerous fire departments and found worthy. It has been installed in hotels and office buildings and is available for individual sales. Most of the people who die in a fire do so because of smoke inhalation and not because of contact with the fire.

MARION LABORATORIES has FDA approval to market Carafate® (sucralfate), a new prescription drug for the short-term treatment of duodenal ulcer. It is a new chemical entity that reacts with proteinaceous debris in the ulcer crater to form a barrier which protects against gastric acid, pepsin and bile. It is only minimally absorbed. Double-blind studies endoscopically controlled showed increased healing rates over placebo controls.

SEARLE announces FDA approval to market Nitrodisc™, a new once-a-day nitrate transdermal therapy for the prevention and treatment of angina. It consists of nitroglycerin microsealed in a solid silicone polymer bonded to a flexible adhesive pad. When placed daily on the skin, the drug is absorbed at a constant and controlled rate through the skin.

GULF & WESTERN Applied Science Laboratories are introducing a new product, Help-Mate™, that enables the handicapped to communicate more easily. It consists of special operating controls developed and linked to a computerized television display, keyboard and printer. It may be activated by a nod of the head, the blowing of a puff of air, or the use of a mouth switch. The handicapped user is able to select letters and numbers and after writing, editing or correcting the copy the text may be printed. The Help-Mate System will operate with any standard TV set.

ALZA CORPORATION has FDA approval for marketing Transderm® Nitro, a patch which when applied to the skin provides controlled delivery of nitroglycerin through the skin into the blood stream. CIBA-GEIGY will market the new system as a prescription medication. The patch will appear in different dosages to allow physicians to titrate an individual patient to the most effective drug level.

UPJOHN reports receipt of FDA approval for marketing of Prostin VR Pediatric Sterile Solution (containing the active drug prostaglandin E_1). In newborns with defects of the heart the new drug will keep the ductus arteriosus open. Circulation is thus satisfactory on a temporary basis, and the infant may be allowed to gain strength with the expectation of definitive surgical repair of the heart defect later.

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News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

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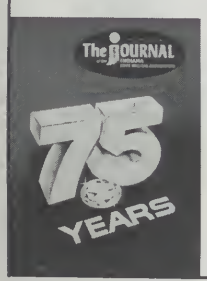
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ABOUT THE COVER

The first issue of THE JOURNAL was published 75 years ago, on Jan. 15, 1908. Since then, we have had only three editors—and Dr. Frank B. Ramsey has held the position for the past 33 years. In this issue, beginning on Page 14, Dr. Ramsey walks you through the history and highlights of the ISMA and THE JOURNAL.

—COVER BY FRED KINGHORN

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EDITORIALS

Agent Orange Studies Continue

The Veterans Administration is distributing to researchers a two-volume compilation of some 1,200 scientific documents covering a 20-year study of the effect on humans of Agent Orange. The study includes several varieties of herbicides.

Despite the fact that over 65,000 veterans have been examined since 1978 to determine the effect if any of exposure to herbicides in Vietnam, and despite the vigorous clinical and research efforts by the government to delineate the problem, no hard evidence has been adduced to indicate what, if any, deleterious effects may be expected.

Possible effects were first studied in relation to Vietnamese natives in 1974. Long-term observations have been conducted on some 1,200 air crew members who were known to have been exposed during loading and spraying.

Follow-ups are in progress on industrial workers who have been accidentally and heavily exposed to herbicides. An epidemiological study of Vietnam veterans is being pursued by the UCLA School of Public Health. A study of possible birth defects is under the aegis of the Center for Disease Control.

It is possible that no toxicological study has ever been so vigorously and carefully pursued by a variety of competent agencies with so little firm evidence as to the possibility of harm.

President Reagan recently elevated coordination of the research efforts to cabinet council status by establishing the interagency Working Group on Agent Orange, which is chaired by Health and Human Services.

The investigation continues on an expanding scale. Definite and dependable conclusions are to be expected.

Preventive Health Care

The apparently healthy individual, very probably, does not require a complete annual history and physical examination. A program tailored to each patient's history, age and sex is a more effective and efficient approach.

The American College of Physicians published the results of a study by its Medical Practice Committee in the December issue of *Annals of Internal Medicine* which outlines a program of minimal preventive measures to be taken for an asymptomatic person at low medical risk. A chart is included to aid in decisions about which tests and procedures to perform in various patients according to sex and age.

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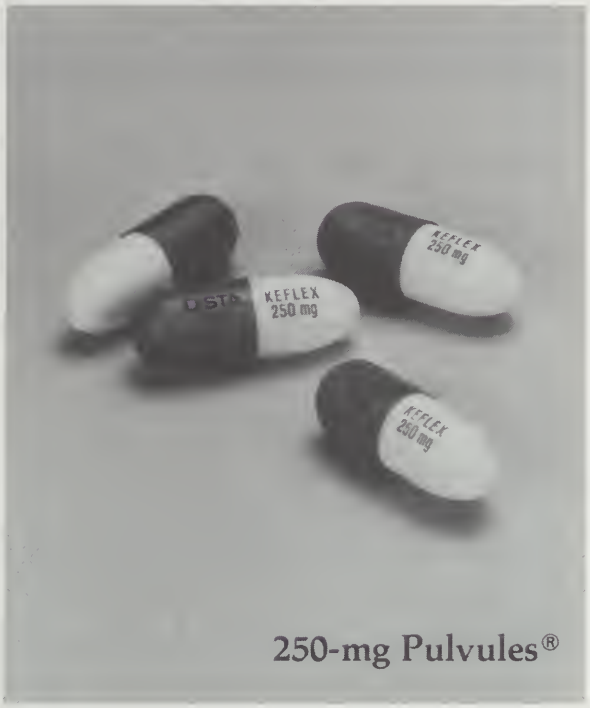
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EDITORIALS

Bring on the Garlic!

The world is more civilized all the time. Those who enjoy garlic may now attribute health benefits to the ingestion of garlic and its compounds, or so it is announced by Japanese researchers.

A Japanese-developed garlic extract called Kyolic is recommended for preventing heart disease and atherosclerosis, for maintaining cholesterol levels in normal range and for improving the body's immune system. The extract is enclosed in a capsule and reportedly does not cause any unpleasant side effects. Added benefits are the lowering of blood sugar in diabetes and the raising of blood sugar in hypoglycemia.

Comparing Prescription Prices

Prescription prices are still a good buy. Comparisons of the price changes in drugs and the Consumer Price Index have over the years consistently and persistently shown that drugs have inflated more slowly than almost any other item. In 1980 producers' wholesale prices rose 8.8% and retail prescription prices were up by 7.2%. The Bureau of Labor Statistics inflation rate since 1970 shows producers' prices up by 143.3%, pharmaceutical prices up by 54.8% and prescription prices up by only 45.1%.

Dr. John Firestone, Professor Emeritus of City University of New York, who has studied drug prices for many years and formulates the Firestone Report, finds that "Americans devote a smaller share of earnings to drug costs than they did 20 years ago." For example, the worker, who in 1960 worked one and one half hours to buy the average prescription, now makes more per hour and devotes 37 minutes to the cost of the same prescription, which costs more than it did in 1960, but not much more.

During the past 20 years, drugs and especially prescription drugs have been one of the big bargains.

Analgesic Drug Combinations

Analgesic drugs have not been available in combination form in Canada since 1972. The combination of acetaminophen and aspirin has not been dispensed in Canada since the early 1970s.

During the same time the incidence of kidney disease due to analgesic drugs has been cut in half. The ingestion of analgesic drugs by Canadians has not decreased—in fact aspirin usage is higher and the importation of acetaminophen has doubled.

Dr. Douglas R. Wilson of the University of Toronto states, in a report in the Nov. 6 issue of *JAMA*, that he believes analgesic-induced kidney disease can be prevented by banning analgesic formulations that contain combinations of aspirin, phenacetin and acetaminophen.

The difference in Canada is that Canadians take their analgesics straight—no combinations. The fact that their kidneys are happier could hardly have happened as a result of coincidence.

The United States should review the situation. There are several over-the-counter combinations of aspirin and acetaminophen.

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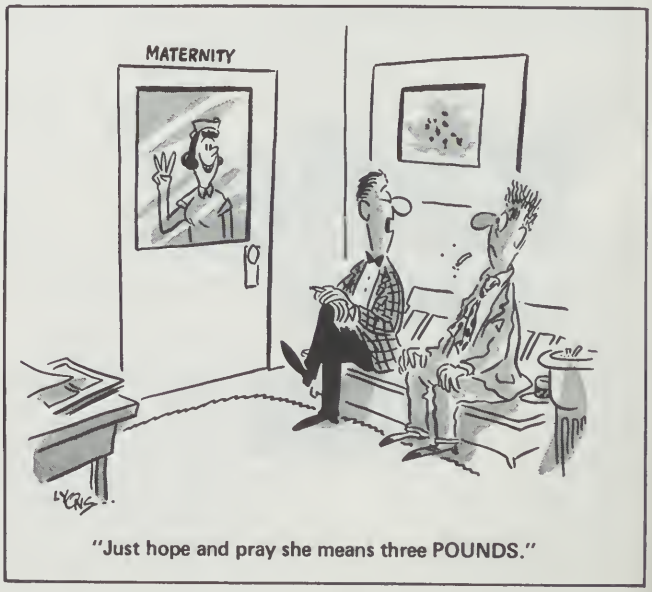
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Child Passenger Protection

Guest Editorial

BRUCE LUSHBOUGH, M.D.
President
South Dakota State Medical Assn.

IN NORMAL EVERY-DAY wear and tear, children hold up very well. But in a car that stops suddenly, or crashes, many children don't do well at all.

Why? Because so many parents don't realize how dangerous an automobile is to young children. And they haven't done anything to protect their children.

Imagine a car traveling at just 30 miles per hour. That is the speed the passengers are traveling too. Then there is a crash . . . and the car stops but the passengers keep moving at 30 miles per hour until they are all stopped by something . . . with the force of a fall from a three-story building. That can be rough on someone, especially a child. (A ten-pound child becomes a 300 pound projectile in a car going 30 miles per hour.)

Maybe you can understand how automobile crashes are the number one killer of children . . . ahead of all other types of accidents and diseases. They are also a major cause of epilepsy and paraplegia.

But there is an easy cure for this epidemic: child restraints and safety belts. Thus far, in 1981, five states have either enacted a "child-passenger protection law" for the first time or amended an existing law. Generally, the term "child-passenger protection law" refers to state legislation mandating that children below a specified age (usually 3 or 4) be properly protected through the use of child-passenger restraint systems meeting certain standards, when being transported in motor vehicles upon the streets and highways of the state.

Arguments for passage of such legislation include the following:

1. Motor vehicle accidents account for the leading cause of death and serious injury to all, children beyond infancy up to the age of 39.
2. Over 90 percent of the children ride unprotected.
3. Child restraint devices have been shown to reduce the chances of death by more than 90 percent and serious injury by 80 percent.
4. Educational efforts to convince adults to wear seat belts have been unsuccessful.
5. National Highway Transportation Safety Administration estimates each death costs $240,000 and $7,000 for each injury. Thus the proposed law represents a practical approach toward health-cost containment.
6. Mandatory seat belt use is required in many other industrial nations of the world. (23 in all.)

Tennessee passed the initial Child Restraint legislation in the United States in 1977 with the help of Doctor Robert S. Sanders, a pediatrician from Murfreesboro, Tennessee, and with the endorsement of the Tennessee Medical Association and the specialty societies of the state. Minnesota passed its legislation this year, effective the first of January 1982. Rhode Island, Illinois and West Virginia are the other states with existing legislation.

"Individual Liberties" got the motor cycle helmet laws repealed in many states in past years. Most doctors and experienced cyclists know helmets should be worn—law or no law. The same argument of freedom of choice has made child restraint legislation unpopular. We should consider that small children have no say in deciding if they will take the greatest risk of their short lives.

Statistics have indicated that 940 children under the age of 5 died in motor vehicle accidents in 1976 and that same year, some 57,000 children were injured, which is over 160 per day. Parents buckle up their babies and children less than they do themselves. Studies agree that only 6-7 percent of the children are being restrained in the cars while 18 percent of the adults wear seat belts.

The South Dakota State Medical Association is on record supporting public education programs concerning "Child Passenger Protection." With that in mind, what can we as doctors do, to increase the voluntary use of child restraints and then safety belts in South Dakota? Some of the

CONTINUED ON PAGE 64

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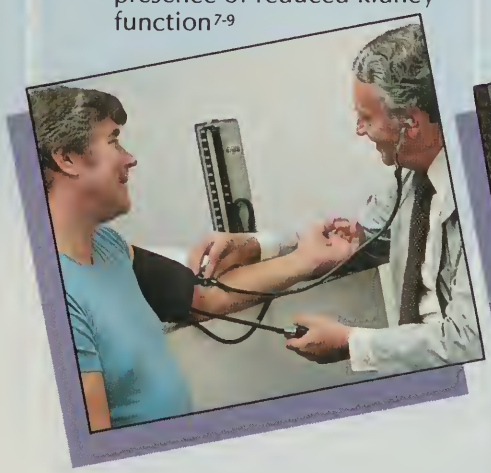
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- ☐ Strong foundation for stepped-care therapy
- ☐ Long-term economy

Before prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary. **Indications:** Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents, and also, edema associated with heart failure and renal disease. Routine use in pregnancy is inappropriate. **Contraindications:** Anuria, hepatic coma or precoma; allergy or hypersensitivity to Zaroxolyn. **Warnings:** In theory cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone. Hypokalemia may occur, and is a particular hazard in digitalized patients; dangerous or fatal arrhythmias may occur. Azotemia and hyperuricemia may be noted or precipitated. Considerable potentiation may occur when given concurrently with furosemide. When used concurrently with other antihypertensives, the dosage of the other agents should be reduced. Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia. Administration to women of childbearing age requires that potential benefits be weighed against possible hazards to the fetus. Zaroxolyn appears in the breast milk. Not for pediatric use. **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose. Observe patients for signs of fluid or electrolyte imbalance, namely hyponatremia, hypochloremic alkalosis and hypokalemia. These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered. Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Insulin requirements may be affected in diabetics. Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur. Zaroxolyn 10 mg tablets contain FD&C Yellow No. 5 (tartrazine) which may cause allergic-type reactions (including bronchial asthma) in certain susceptible individuals. Although the overall incidence of FD&C Yellow No. 5 (tartrazine) sensitivity in the general population is low, it is frequently seen in patients who also have aspirin sensitivity. **Adverse Reactions:** Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth, hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks. **Usual Initial Once-Daily Dosages:** mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg; edema of renal disease—5 to 20 mg. Dosage adjustment is usually necessary during the course of therapy. **How Supplied:** Tablets, 2½, 5 and 10 mg.

References: 1. Data on file, Medical Department Pennwalt Pharmaceutical Division. 2. Sambhi MP, Eggena P, Barrett JD, et al: A crossover comparison of the effects of metolazone and hydrochlorothiazide therapy on blood pressure and renin angiotensin system in patients with essential hypertension, in Sambhi MP (ed): *Systemic Effects of Antihypertensive Agents*. New York, Stratton, 1976, pp 221-245. 3. Pilewski RM, Scheib ET, Misage JR, et al: Technique of controlled drug assay in hypertension: V. Comparison of hydrochlorothiazide with a new quinethazone diuretic, metolazone. *Clin Pharmacol Ther* 12:843-848, 1971. 4. Fotiu S, Mroczek WJ, Davidov M, et al: Antihypertensive efficacy of metolazone. *Clin Pharmacol Ther* 16:318-321, 1974. 5. Cangiano JL: Effects of prolonged administration of metolazone in the treatment of essential hypertension. *Current Therapeutic Research* 20:745-750, 1976. 6. Dornfeld L, Kane RE: Metolazone in essential hypertension: The long-term clinical efficacy of a new diuretic. *Current Therapeutic Research* 18:527-533, 1975. 7. Puschett JB: Physiologic basis for the use of new and older diuretics in congestive heart failure. *Cardiovascular Medicine* 2:119-134, 1977. 8. Craswell PW, Ezzat E, Kopstein J, et al: Use of metolazone, a new diuretic, in patients with renal disease. *Nephron* 12:63-73, 1973. 9. Bennett WM, Porter GA: Efficacy and safety of metolazone in renal failure and the nephrotic syndrome. *J Clin Pharmacol* 13:357-364, 1973. 10. *Drug Topics Red Book 1981*, and manufacturers' suggested prices.

℞ DIVISION
PENNWALT
ROCHESTER, NEW YORK 14623

A-297

Too Many Doctors?

Guest Editorial

SOMETIMES the government talks as if the current surge of physicians—which it helped create—were almost a national calamity.

Thanks largely to federal aid to medical schools, now being substantially cut back, the number of medical students has doubled in the past 15 years. The Department of Health and Human Services points out that as more new doctors join those already in practice and treat more patients, the nation's total medical bill keeps going up.

But while competition hasn't lowered physicians' fees, it is beginning to have another effect the government had hoped to encourage. Medical school graduates in increasing numbers are hanging out their shingles in small towns and rural areas, where there has been a shortage of doctors for at least three decades.

Some of the indications, as reported by Scripps-Howard reporter Don Kirkman:

The Oregon Medical Association has stopped recruiting physicians for rural areas because the state has all it needs. Maine has reduced its scholarships to medical students for the same reason. Okracoke, N.C., an isolated Outer Banks community near Cape Hatteras, has a doctor for the first time in 40 years.

An oversupply of doctors in the big cities is one factor in the trend. The National Health Service Corps has had good success in placing doctors in rural areas. And like other Americans, physicians are becoming disenchanted with the crime-ridden cities and are seeking the values of rural and small-town living, even if it means a lower income.

However, there are still 1,900 areas of the nation—many of them urban ghettos—that do not have enough doctors, or have no doctor at all.

In other words, there is still plenty of room and need for doctors. The federal and state governments shouldn't pare down the medical schools too abruptly and too drastically.

Reprinted by permission from the *Evansville Press*, Sept. 16, 1981.

Open Sesame

Guest Editorial

A RECENT DECISION by the U.S. Fifth Circuit Court of Appeals in Florida, in a U.S. vs. Generix case, appears to open the door for a flood of "me-too" products.

The court held that the terminology "new drug" applies only to the active ingredient of the drug products, and it is up to the Food and Drug Administration to regulate the other elements of the formula through compendium standards, facility inspections and enforcing good manufacturing practices. To this we say, "Good luck, FDA!"

The significance of this decision (if it is allowed to stand), so far as pharmacists are concerned, is that one of the supporting elements in the purchase of generic drugs will be lost. Up to this point, the assumption has been that when a generic came upon the market it had either a new drug application approved or an abbreviated new drug application approved. At the very least, some form of FDA approval is established. This will not be true anymore, unless it is a "new drug" as defined by the court. In other words, a 5-grain aspirin tablet is a 5-grain aspirin tablet—no matter who manufactures it or what process they may use.

Up until now, the FDA has tried to insist that the products have bioavailability. Bioequivalence has always been difficult to prove.

We believe that the court has gotten somewhat confused as to the difference between a "new drug" and a "new drug product." It will be interesting to see how many people with the capacity to buy a tablet machine will be getting into the pharmaceutical business.

It will be more interesting from the standpoint of pharmacists to make any quality judgment with regard to generic products, since the only guarantee they will have is that the active ingredient of the product is the same as the original and all those other copies.

Reprinted from *Action in Pharmacy*, November 1981.

January 1982: 75th Birthday of The ISMA Journal

History and Highlights Indiana State Medical Association and Its Journal

FRANK B. RAMSEY, M.D.
Editor

IN 1849, on a perfect day in June, 28 physicians met in Indianapolis and formed the Indiana State Medical Society. Committees were chosen and, the next day, a Constitution was adopted. Before adjournment, 56 other physicians were made members and several orations on zeal, ethics and morals were duly delivered.

Indiana was then in its 34th year of statehood. It had been considered safe from Indians for only a few years. It was just emerging from the great labors of exploration and pioneering, which had begun over 100 years before, and was in the midst of a massive colonization.

A contemporary wrote: "A savage wilderness, resting in primaeval solitude—is suddenly opened to an eager multitude, who pour in like the waters of the sea, and cover it with civilized life."[1]

In 1816, the state had been carved from the "Territory of the United States Northwest of the River Ohio," all 23 million acres of it. The vast land area, wild as it was, had attracted the hordes of pioneers and now provided the only source of wealth. Land ownership was the status symbol of the day and surveying was the status profession.

Government land sales were so busy that "land office business" remained the descriptive phrase for a going enterprise long after the last land office had been closed.

Almost everyone lived on farms, and even those who lived in settlements spent some time farming. In spite of agriculture, the pioneer's diet was largely wild game; this was because of the abundance of wild life and the fact that half the crops were eaten by wild life before harvest.

The high protein diet and the outdoor living should have produced health, but it did not. The pioneers were a sickly lot. Malaria, typhoid fever, pneumonia and erysipelas were endemic. Milk sickness, bilious fevers, cholera morbus and Asiatic cholera were epidemic. Intermittent fevers determined the work schedule. "The justice arranged the docket to avoid the sick day of the litigant, the minister made his appointments in keeping with his shakes, and even the sparking swain reckoned the 'ager' schedule of self and intended."[2]

Physicians of the Northwest Territory were dependent on roots, barks and berries. Many of their truly effective remedies they learned from the Indian medicine man. What few active drugs they had were helpful, but little was obtainable. The doctor was an important figure in pioneer life, but he was usually a jack of all trades and, in the collective, was possessed of a magnificent variety of education running from practically none to the best of the day.

The First General Assembly (1816) provided for three judicial districts which were also medical districts, with boards of censors to regulate medical practice, grant licenses and fix fees. Laws were passed in 1819, 1825 and 1830 directing the formation of a state medical society. These "societies" were endowed with legal functions of licensing, examining, regulating, correction and chastisement. They all failed of success due to difficulties in travel and communication.

The Transactions—1849-1907

Almost all medical affairs were at a county or district level until 1849. Communications must have improved, or else the "forty-niners" were made of sterner stuff, for the Society, which was formed on June 6, has enjoyed continuous and vigorous life ever since. Its delibera-

Dr. Ramsey has been editor of THE JOURNAL since 1949. In company with editors of several other state medical association journals, he originally wrote this article as part of a series published by *Massachusetts Physician.* It is reprinted by permission from the September 1969 issue of that publication.

tions and for many years its scientific writings are preserved in bound form as *The Transactions.* A separate volume rests in the archives for each year from 1849 to 1908.

John H. Sanders was the chairman of the 1849 founding convention, and Livingston Dunlap was elected first president. John S. Bobbs, later to be distinguished by performing the world's first operation for gallstones, was secretary of the convention and of the Society for its early years.

Within a few years, the slowly growing Society began periodically to amend its bylaws. It had been ruled by a body of delegates so loosely chosen as to include everyone who attended the annual meeting until, in 1861, delegates were first elected by the constitutent county societies and certified.

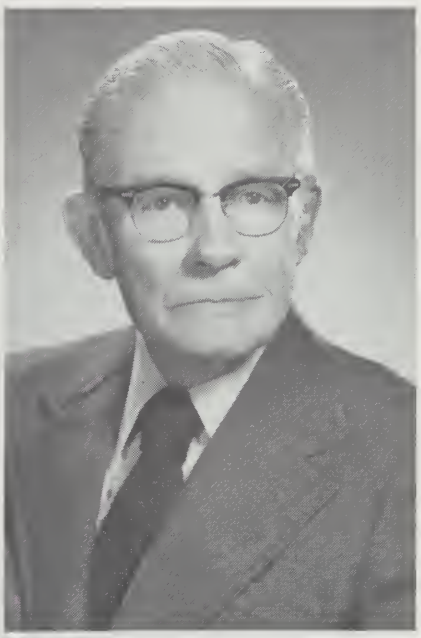
The war years saw limited attendance, but in 1862 there were 300 members. The meeting that year produced an expense of $93 and a resolution for investigation of the microscope.

Ethics and morals were the great considerations for many years. Charges of unprofessional conduct, plagiarism, and the publication of pamphlets promoting secret remedies were heard at many of the meetings. One of the former presidents of the Society was expelled when he had been found guilty.

In 1874, *The Transactions* began the printing of a "Medical History of Indiana," and included four pages of eye grounds, in four colors. Soon after this, the delegates directed that a letter of thanks be sent to Governor Hendricks for his having recommended the formation of a State Board of Health.

Medical Defense

The Annual Meeting prepared a petition to the State Legislature in 1877 requesting legislation to govern the collection of vital statistics.



Dr. Frank B. Ramsey, editor of THE JOURNAL since 1949, is a 1927 graduate of Indiana University School of Medicine. After completing his internship and residency in Indiana, he was a Fellow in Surgery at the Lahey Clinic in Boston from 1931 to 1933. He served in the Army Medical Corps from 1941 through 1946 and was awarded the Legion of Merit and the Bronze Star Medal. Now retired, Dr. Ramsey was a general surgeon in Indianapolis and an associate professor of surgery at Indiana University. He also served as a civilian consultant in surgery to the Surgeon General of the Army. He is a Fellow of the American College of Surgeons and of the American Medical Writers Association.

In this year also, for the first time, debate was held concerning the establishment of a medical journal.

In 1878, a voluntary statewide contribution was solicited for the aid of a county society which had financed the defense of two of its members against charges of malpractice. Soon after this, the State Society began to consider the establishment of a medical defense fund.

Indiana was cited by the American Medical Association in 1879 for its advanced state of organization and its insistence that the county society was the important unit. Soon after this, Theophilus Parvis was elected president of the AMA, the first from Indiana to occupy that post.

Scientific matters occupied the members the next year; the bacterial theory of disease was subjected to formal debate, and tobacco as a cause of consumption was discussed.

The early 1880's saw much criticism, most of it unfavorable, of *The Transactions.* One committee opined that $600 was too much to pay for 1,000 copies of the annual publication. Another report mentioned that the state was distinguished by having one of the most voluminous transactions, but that the volumes were tedious reading and had too much verbatim reporting. The text was described as dull or interesting, depending on who was talking. In 1884, a motion to establish a journal was narrowly defeated.

Conduct and behavior still drew considerable attention. Investigation of complaints against practitioners multiplied and, at about this time, a survey revealed that the state contained 5,376 practitioners who called themselves doctors, 2,056 of whom had not graduated and 48 of whom could not write their own names.

Behavior in regard to reading papers at the meeting also came in for regulation. Members objected to paying the expense of printing, "although no better plan could be devised to insure that they would never be read."[3] The gathering in 1888 took on a distinctly literary tone. James Whitcomb Riley wrote the toasts and gave the premier recitation of his poem, "Doc Sifers."

By 1892, there were over 1,000 members and the scientific sessions began to meet in sections. This was the year that the House of Delegates first utilized reference committees. Fiscal integrity was illustrated by the $1 annual dues and a positive balance of 8 cents for one year and $1 for the next.

Origin of Scientific Medical Exhibit

The nation's first Scientific Medical Exhibit, prepared by Frank B. Wynn for the State Society Meeting in 1898, consisted of 175 pathological specimens and was presented with demonstrations. It was so well received that the AMA invited its inclusion in the national meeting that year in Columbus, Ohio. It has been an AMA feature ever since.

Reorganization was the theme for 1903. The Society's Constitution, which had lasted for 50 years with but a few amendments, was set aside for a new document compatible with those of other states. It recognized the AMA as a federation of state societies and firmly established the county society as the ultimate unit. The title was changed to Indiana State Medical Association. District medical societies were provided for. The House of Delegates was directed to meet in sessions separate from the scientific body.

Another transformation was occurring. *The Transactions* contained only brief minutes of Association business and were without scientific content for several years. In 1908, THE JOURNAL *of the Indiana State Medical Association* was born. It was originally the private enterprise of a member, A. E. Bulson, MD, who provided the finances, managed and edited the publication, and provided each member a year's subscription for 75 cents. Dr. Bulson's pocketbook is reputed to have suffered originally because of his refusal to accept advertising not of the highest standards. Such standards are commonplace today but were novel at that time.

The Medical Defense Fund was set up in 1910 and financed by a small contribution from each member's dues which, by this time, were $2 a year. The next year, an attorney was retained for Association business, and the Fourth Annual Conference of County Secretaries was held. There is no mention of when the first three such Conferences met. This was also the year in which a new Section on Eye, Ear, Nose and Throat was organized.

Indiana State Journal

Successive years produced a steady procession of administrative changes. Committee reports for the House of Delegates were printed in THE JOURNAL in advance of each meeting. Former presidents were added to the House of Delegates and the Association adopted a strong amendment against fee-splitting.

In 1916, the Executive Secretary of the Ohio State Medical Association addressed the delegates and complimented the state for THE JOURNAL, its Scientific Exhibit, and its Medical Defense Fund. He indicated that these things made Indiana one of the leading state associations. The next year, Indiana installed its first Executive Secretary.

More administrative changes appeared in the form of a Bureau of Publicity, a dues increase to $7, postgraduate clinics and lectures prior to the Annual Meeting, a Budget Committee and a president-elect. By 1927, the House of Delegates had divided its sessions and made all decisions at the final session. The Woman's Auxiliary was formed and the Medical Defense Fund, which had formerly operated with a limited budget, established a reserve.

The early 1930's witnessed numerous statements against socialized medicine and group hospital insurance, and a request for inquiry into the practices of the State Board of Health. A reference book on socialized medicine was published in 1935 for the information of those who wished to debate or write upon the subject.

E. M. Shanklin was elected editor of THE JOURNAL in 1932, to succeed Dr. Bulson, who had died suddenly, and an Editorial Board of five members was added.

The First Federal Grant

The first federal grant for medical purposes in Indiana—one for the care of crippled children—was announced in 1937. Two years later, the Association endorsed nonprofit hospital insurance—later to be known as Blue Cross. Medical insurance, however, was not favored at this time and, as the war commenced, the profession was absorbed with problems of procurement and assignment.

In 1943, two topics engaged what attention the war-depleted profession could muster: Medical care for the families of men in service, and the difficulties of maintaining good health in industry.

In the ensuing year, the Association adopted a group policy to cover professional liability. During 1945 and 1946, it held three sessions of the House of Delegates to complete organization of Blue Shield. The original financial reserve for this was provided by advances made by the physicians, later to be refunded.

In 1945, a fifth clinical section, that for general practice, was added to the Annual Meeting, now called the Annual Convention. The first formal discussion took place concerning the advisability of building a headquarters building—a permanent home for the Association.

A membership survey in 1947 disclosed that 204 of the some 3,600 members had been practicing for 50 years or more. This prompted the formation of the Fifty Year Club. Forty of the eligibles attended the inaugural meeting and established a custom which has since been repeated annually.

The office of alternate councilor was added to the district societies in 1948 and the entire membership began to plan for the organization's

Centennial celebration. THE JOURNAL acquired an associate editor to assist Dr. Shanklin, who was ill, and the Editorial Board was increased to six members.

In 1949, the Association held its 100th meeting and selected the present editor to succeed Dr. Shanklin, who became Editor Emeritus. The dues were elevated to $35, and an assistant treasurer was added. Several resolutions were introduced to mandate, in various ways, several years of general practice for those who wished to enter a specialty.

Improvement of the individual member's ability to govern the Association was sought in 1951 by having the delegates meet semiannually. A series of telephone seminars, originating in the School of Medicine, and heard by county medical societies by way of loudspeakers was instituted.

Preceptor Training

A plan for providing senior medical students with short periods of preceptor training in general practice was begun in 1952. Three additional associate editors were elected to THE JOURNAL staff. The next year was concerned with problems of accreditation of hospitals and the role of general practitioners in hospitals. A thoroughly unusual event took place—the dues were decreased by $5.

In 1957, plans were started for the financing and construction of a Headquarters Building, and the 50th anniversary of the founding of THE JOURNAL was celebrated with a special issue. The committees of the Association, which had become so numerous as to be unwieldy, were studied in 1958 and, with a few exceptions, were reorganized into 11 commissions.

In 1962, the Association moved into its new home, a handsome, commodious and comfortable headquarters for a large staff and THE JOURNAL devoted to the proposition that "the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life."

REFERENCES

1. Western Monthly Magazine, Nov. 1836.
2. Buley, R. Carlyle, *The Old Northwest.* Bloomington, Indiana: Indiana University Press, 1951, Vol. 1, p. 245.
3. Russo, Dorothy Ritter. *One Hundred Years of Indiana Medicine.* Indianapolis, Indiana: Indiana State Medical Association, 1949, p. 12.

The Aim and Hope of the Editors . . .

The first issue of THE JOURNAL of the Indiana State Medical Association was published January 15, 1908. In that issue, Dr. Albert E. Bulson, Jr., the editor, told readers:

"It will be our aim to publish as large and as good a journal as the Association's finances and our capabilities will permit. It is our purpose to give the members a journal which will serve all the purposes of any general medical periodical and, in addition, be the official organ of the Association. . . .

"An endeavor will be made by the editors to make THE JOURNAL a truly representative organ of the medical profession of Indiana, and to that end the encouragement and support of every doctor in the state is solicited. . . .

"The editorial policy will be to recognize and approve the things which make for a better medical profession, and to disapprove and censure those things which lower the moral, professional or scientific standard of medical practice. . . .

"Indiana has long held an enviable record for progressiveness in medicine, and the establishment of a journal to represent the interests of the entire profession of the state is but another step in the line of progress. To make THE JOURNAL all that it should be in order to earn the support and encouragement of a progressive profession is the aim and hope of the editors."

ISMA COUNCILORS, 1907

The following physicians comprised The Council (now called the Board of Trustees) of the Indiana State Medical Association, which met Oct. 15, 1907, and directed the establishment of THE JOURNAL:

1st District—W. R. Davidson
2nd District—George Knapp
3rd District—W. J. Leach
4th District—W. H. Stemm
5th District—J. H. Weinstein
6th District—D. W. Stevenson
7th District—W. N. Wishard
8th District—G. W. H. Kemper
9th District—George Rowland
10th District—E. G. Blinks
11th District—C. H. McCully
12th District—A. E. Bulson, Jr.*
13th District—C. A. Daugherty
* Named first editor

EDITORS

Albert E. Bulson, Jr., Fort Wayne
1908-1932
Eldridge M. Shanklin, Hammond
1933-1948
Frank B. Ramsey, Indianapolis
1949 to date

CONSULTING EDITORS

Formerly called Associate Editors

N. K. Forster, Hammond
1946-1947
Frank B. Ramsey, Indianapolis
1948
A. W. Cavins, Terre Haute
1949 to date
Lall G. Montgomery, Muncie
1953 to date
David A. Bickel, South Bend
1953-1971
Stephen L. Johnson, Evansville
1953-1963
Samuel R. Mercer, Fort Wayne
1964 to date
Irvin W. Wilkens, Indianapolis
1968 to date
W. D. Snively Jr., Evansville
1974 to date
Charles A. Bonsett, Indianapolis
1977 to date

EDITORIAL BOARD MEMBERS

The ISMA Council directed the creation of an Editorial Board in 1932.

Alvin J. Haley, Carmel
1963 to date
Wei-Ping Loh, Gary
1965-1981
Steven C. Beering, Indianapolis
1971 to date
Elton Heaton, Madison
1971 to date
Paul S. Rhoads, Richmond
1973 to date
Rodney A. Mannion, LaPorte
1974 to date
Alan T. Marty, Evansville
1982
Irvin W. Wilkens, Indianapolis (now Consulting Editor)
1955-1967
Samuel R. Mercer, Fort Wayne (now Consulting Editor)
1954-1962
W. D. Snively, Evansville (now Consulting Editor)
1968-1973
Lall G. Montgomery, Muncie (now Consulting Editor)
1941-1943, 1947-1949
Frank H. Coble, Richmond
1967-1972
Jene R. Bennett, South Bend
1958-1970
George M. Johnson, Richmond
1955-1966
Franklin F. Premuda, Hammond
1961-1964
Harold D. Lynch, Evansville
1953-1967
George N. Lewis, Gary
1954-1960
Carl S. Culbertson, South Bend
1953-1957
George M. Cook, Hammond
1952-1954
Richard H. Miller, Fort Wayne
1952-1954
Clyde G. Culbertson, Indianapolis
1951-1953
Thomas M. Conley, Kokomo
1951-1953
David A. Bickel, South Bend
1950-1952
Stephen L. Johnson, Evansville
1950-1952
E. L. Cartwright, Fort Wayne
1949-1951

Raymond F. Carmody, Gary
1949-1951
Kenneth G. Kohlstaedt, Indianapolis
1948-1950
Jacob T. Oliphant, Farmersburg
1948-1950
Pierce Mac Kenzie, Evansville
1947-1949, 1933-1940
E. L. Bulson, Fort Wayne
1946-1948
F. R. N. Carter, South Bend
1946-1948
Charles N. Combs, Terre Haute
1945-1947, 1933
Bert Ellis, Indianapolis
1945-1947
Minor Miller, Evansville
1944-1946
M. A. Austin, Anderson
1944-1946
Harry W. Garton, Fort Wayne
1943-1945
Ernest Rupel, Indianapolis
1943-1945, 1933-1938
Robert V. Hoffman, South Bend
1942-1944
James O. Ritchey, Indianapolis
1942-1944
Herman M. Baker, Evansville
1941-1943
E. L. Van Buskirk, Lafayette
1940-1942
James F. Balch, Indianapolis
1940-1942
Lyman T. Rawles, Fort Wayne
1939-1941
Edgar F. Kiser, Indianapolis
1939-1941
J. B. Maple, Sullivan
1939-1940
L. P. Harshman, Fort Wayne
1934-1938
Floyd T. Romberger, Lafayette
1933-1939
Thurman B. Rice, Indianapolis
1933-1939

Medical students from the Indiana University School of Medicine were added to the Editorial Board in 1980.

Kathleen Kilcline—1980
Ann T. Moriarty—1980-1981
William Vaughn—1980-to date
Allison Vidimos—1981-to date
Michael Bernstein—1981-to date

MANAGING EDITORS

Formerly called Assistant Editors and Editorial Secretaries

Martin T. Badger, Indianapolis
1978 to date
Jean J. Richardson, Indianapolis
1970-1977
Jackie Freers Stahl, Indianapolis
1962-1969
Sara M. Snyder, Indianapolis
1960-1961
Corki Wilson, Indianapolis
1958-1959
Jeanne S. Grover, Indianapolis
1952-1957
Isabella Rowlinson, Indianapolis
1945-1952
Nella H. Rokke, Indianapolis
1942-1945
Hope (nee Toman) Skobba, Indianapolis
1920-1941
Ben P. Weaver, M.D., Fort Wayne
1909-?

BUSINESS MANAGERS

The ISMA Executive Director has served as Business Manager since 1952.

Donald F. Foy, Indianapolis
1976 to date
James A. Waggener, Franklin
1952-1975
Ray E. Smith, Indianapolis
1946-1951
Thomas A. Hendricks, Indianapolis
1933-1945





Boyne USA RESORTS
BIG SKY · BOYNE MOUNTAIN · BOYNE HIGHLANDS

1981-1982

MEDICAL/DENTAL MEETINGS

BOYNE HIGHLANDS
Harbor Springs, MI

NAME AND GROUP CONTACT	ARRIVAL/ DEPARTURE	TYPE
EMERGENCIES IN MEDICINE Dr. Robert Wilson	1/10-1/15, '82	
TRI-STATE DENTAL Dr. Donald DeCenso	1/10-1/15, '82	
OHIO VETERINARY MEDICAL ASSOC. Dr. George Norris	1/24-1/29, '82	
FAMILY PRACTICE UP-DATE CONFERENCE Janet Johnson	1/31-2/5, '82	
MICHIGAN OPTOMETRIC ASSOCIATION Dr. Phillip Irion	2/14-2/19, '82	
BOYNE WINTER IMAGING SEMINAR Dr. Robert Bree	2/14-2/19, '82	

BOYNE MOUNTAIN
Boyne Falls, MI

MID-WINTER MEDICAL MEETING Dr. Michael Hughes	1/24-1/29, '82	
MICHIGAN HEART ASSOCIATION Eleanor Peterson, R.N.	1/31-2/5, '82	

BIG SKY OF MONTANA

AMERICAN ASSOCIATION OF DENTISTS Morris Travel	1/16-1/23	National
ACADEMY OF FAMILY PHYSICIANS D.J. Breen, MD Hillsboro Clinic	1/24-1/30	National
MONTANA PHYSICAL THERAPY ASSOC. Diane C. Allen, LPT	1/22-1/24	State
BIG SKY RADIOLOGY Dr. Virgil B. Graves Dept. of Radiology Columbus Hospital	2/1-2/6	National
MONTANA ACADEMY OF OPHTHALMOLOGY Dr. Kenneth Younger	2/11-2/14	Regional
MONTANA ACADEMY OF DERMATOLOGY Dr. Ronald Orman	1/12-2/15	Regional
CARDIOLOGY SEMINAR Dr. Sidney Goldstein Head-Division of Cardiovascular Medicine Henry Ford Hospital	2/13-2/20	National
TRI-STATE DENTAL/ MEDICAL Hugh Henning, DDS	2/20-2/27	Regional
TOPICS IN INTERNAL MEDICINE Frances Burt	2/23-2/28	National
ANESTHESIOLOGY SEMINAR Mrs. Phyllis Sherburne Director of Educational Services Columbus Hospital	2/24-2/28	National
OB/GYN SOCIETY Dr. John Browne	3/3-3/7	Regional
BIG SKY UROLOGICAL SOCIETY Dr. Robert Towers	3/4-3/7	National
WESTERN ORTHOPEDIC ASSOCIATION James F. Schwarten, MD The Billings Clinic	3/5-3/7	Regional
CONTINUING EDUCATION SEMINAR, MEDICAL COLLEGE OF GEORGIA Morris Travel	3/7-3/13	National
MONTANA SOCIETY OF DENTISTRY FOR CHILDREN Dr. Thomas Wickliffe	3/18-3/21	State
PULMONARY DISEASES COURSE Terrie vanAllen Extended Programs in Medical Education	3/20-3/27	National
"ACHA Hospital Liability and the Quality of Patient Care" Eugenia Shulier Am. College of Hospital Administrators	1/16-1/23, '82	National
AMERICAN LUNG ASSN. OF MONTANA Earl Thomas	1/28-1/31 '82	State

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'The Spark Within'

STEVEN C. BEERING, M.D.
Dean, Indiana University
School of Medicine

In 1853, a young man was graduated from Harvard College with an interest in mathematics and chemistry. After seven or eight years of teaching, he became restive and went to Europe to grapple face to face with the exciting intellectual developments of the university world in France, Germany and Austria. Mr. Eliot soon discovered that European scholarship and research had a breadth and depth which most people in American colleges had not thought possible.

When he returned to the United States, he accepted an appointment to the faculty of the newly founded Massachusetts Institute of Technology. Shortly thereafter, he was chosen as president of Harvard University. Immediately, he began to remodel higher education, including professional education. In his first annual report as president he said, "The whole system of medical education in this country needs reformation."

This presentation was delivered in part at the 1981 Congress on Medical Education.

It was his conviction that the teaching of medicine was properly a university discipline and that it should be strongly implanted in the university. It was also necessary that it be joined to clinical teaching in hospitals. If medicine in America was to aspire to its European counterpart, it must become a full-time occupation for both students and teachers. The study of medicine must be rooted in laboratories, libraries and hospitals and carried on continually and intensively. Finally, it must be concerned not only with the transfer of information but also the advancement of knowledge as was the case in other university disciplines.

Mr. Eliot's notions antedated the Flexner Report by many years. Today, the pattern of medical education in America has not only reached Mr. Eliot's intent of approximating European standards, but has surpassed his idealized vision of the future. Medical education is now a mature discipline of scientific investigation and learning; it is no longer vocational training but indeed university education.

Over 200 years ago, the great British author, Alexander Pope, contemplated the inscription on the Oracle at Delphi which simply says, "Know thyself," and he penned the immortal lines —

> "Know thyself — presume not
> God to scan —
> The proper study of mankind
> is man."

If indeed the proper study of mankind is man, how can you and I prepare for a lifelong quest?

During our college years, we developed as a person by acquiring values, a philosophy of life, a sense of self, a sense of community, a concern for our fellowman and a knowledge of history. We dreamt big dreams and thought long thoughts. We channeled our curiosity into thousands of questions and hopefully disciplined ourselves into reflective thought. We dared to try new things. We developed a sense of proportion, a sense of what

is right, what is reasonable, what is realistic and perhaps gained an appreciation of our own limitations. We learned what is possible! We persevered in our commitment to become medical scientists and healers and entered into the life-long study of the profession of medicine.

Perhaps the most important skill that we honed during our college years relates to the ability to communicate. We did a lot of reading, thinking, speaking, writing and, most importantly, listening.

We are different from other living things in that we can communicate ideas. Ideas are abstractions enabling us to think productively. Ideas may deal with dainty little notions or with profound monumental concepts. We can convey concrete

Medical education . . . is no longer vocational training but indeed university education.

items like a grocery list or speculate on the theory of relativity and the double helix of life. The orderly management of ideas we call education.

Education implies discipline—the learning of what has gone before, what is now and what is yet to be. A good education allows us to master our thoughts so as to materialize ideas and to move forward in time—to make progress!

The best way to get new ideas is to ask questions. The response—or new idea—we call answers. Over the centuries we have discovered systematic ways to find answers—we call these methods science, logic mathematics, music, art and literature. We have also found that the precise answer is not so important as the process of reaching a common understanding—we call this process communication. While learning, language and methods differ, communication is a common value. Communication enables us to bridge differences and to appreciate relationships. It is an opportunity shared across cultures. It is the ultimate means to every end.

Through communication—study, reading and discussion—we have learned about some of the great moments in medical history. But what is medicine? What is an M.D.? Osler observed that "Medicine is at once an art and a science; a calling—not a vocation or a trade."

Hippocrates said that the art of medicine "consists of three things—the disease, the patient and the physician." The term M.D. evokes clusters of ideas, images and functions. To convey the meaning of medicine—as a science, an art and a profession—requires ideas descriptive of concepts, facts and principles, skills and practices, traditions and beliefs deeply rooted in all three of the ancient disciplines of Law, Theology and Medicine. It also requires an appreciation of the kinds of individuals who have practiced medicine over the years. What sort of people are attracted to this profession?

In the Bible we meet Luke the "beloved physician." He was respected by his contemporaries for his medical skills and his compassion. He was a story-teller and a musician. He was the author of the Third Gospel and the Book of Acts and the composer of numerous great hymns—five of which are preserved to this day.

A thousand years later (980-1037 A.D.) there was Avicenna. He was a precocious youngster who by age 16 had mastered the studies of law, mathematics, physics and philosophy. He next turned to medicine and within two years had acquired the medical knowledge of his day. He was unusually creative—writing more than a hundred books on theology, metaphysics, astronomy, poetry and medicine. His "Canon of Health" was translated into eight languages and became required reading in the medical curriculum of the great European universities well into the 16th century—some 500 years after it was first written.

During the early years of *our* nation, physicians were prominent as statesmen; six of the signers of the

The M.D. degree is pursued by those who are . . . above all, eager to serve their fellowman.

Declaration of Independence were medical men. Others served as educators and university founders and administrators—Benjamin Rush and David Starr Jordan were among these.

The world of music has been enriched by the work of many physicians such as Fritz Kreisler, Albert Schweitzer, Hector Berlioz and Alexander Borodin.

Physicians have made notable contributions to literature: Anton Chekhov, A. J. Cronin, Arthur Conan Doyle, Oliver Wendell Holmes, John Keats and Somerset Maugham come to mind.

Physicians have revolutionized public health—Lister, Pasteur, Salk and Sabin and countless others.

As we recall the distinguished careers of these pioneers, we find that the M.D. is pursued by individuals who are broad in interest, curious, enthusiastic, restless and above all, eager to serve their fellowman. There was a spark within each of them—a spark that ignited life-long effort.

Given such bright and motivated students, the environment for medical education could be quite variable—in fact, one of our medical

schools does have a totally elective curriculum. During the past 75 years, however, there has been such enormous growth in scientific information, medical skills and new technology that the teaching program must once again be disciplined and organized. We do share with the earlier eras the continuing need for realism. The program cannot be solely didactic or theoretical; one

Medicine must be learned through personal observation, critical thought, careful analysis, problem solving and repeated practice.

can no longer "read medicine" as an avocation. One must know the "new biology" yet realize that diseases still afflict the same body. Thus the student must have a chance to participate in "clinical experiences"—to see, hear, smell, touch, taste and feel medicine.

Medical education must emphasize self-learning and the development of independent judgment. Medical teachers must demonstrate the infinite variety of what is normal and point out essential and important problems, not merely the interesting esoterica. Medicine cannot be taught; rather it must be learned—learned through personal observation, critical thought, careful analysis, problem solving and repeated practice.

While being a practicing physician today implies intensive specialty training of three to five years after medical school, the M.D. degree is actually earned at the completion of four years of undergraduate medical education. This means that the medical curriculum must be sufficiently specific to equip each student with the requisite core of information and skills to enable the student to enter specialty training. But the program must also be general enough to allow for the inculcation of life-long learning habits and humanistic attitudes to fortify the fledgling physician against passing fancies and fleeting fads. It requires courage, discipline, self-assurance and integrity *not* to jump on the popular bandwagons of diagnosis and treatment. Think of how much misery could have been prevented over the years if physicians had resisted the urge to purge or bleed or puncture—or if we could stand fast when patients demand a shot, a tranquilizer, antibiotics or even an operation.

Jacques Barzun has pointed out that a profession is an institution which satisfies a precise human need and for which special training is required. Medicine is such a profession but we must recognize that the needs can be met in other ways. There have always been sick people but the way in which care has been provided and the functions of physicians have changed dramatically over the centuries. Physicians have been priests, magicians, astrologers, counselors and only recently scientists, managers and members of a health care team; but invariably the successful ones have what Goethe called "the right stuff." Let me illustrate by sharing one graduating student's thoughts:

"The last 3½ years have changed the way I think of myself. I have gone from considering myself a 'layperson' to thinking of myself as a physician. Much of this transformation is related to the body of information I have been so busy accumulating—information that has allowed me to participate in decisions concerning the welfare and fate of my patients. But a large part of the change is due to my exposure to 'medical' experiences rather than to the accumulation of bits of information. These experiences are not listed in the medical school syllabus.

"Suddenly I have found myself privy to the underbelly and the hidden thoughts of humanity. A modest grandmother has shown me the skin lesion on her inner thigh. I have heard the secret fears of an old man that he would never tell his wife of 50 years. I have caught babes first squeezed out from their mothers' wombs and held them as they gasped their first breath. I have stayed up late reading Shakespeare with a man who had cancer and was trying his best to die cheerfully. I have stared into the blank face of a pretty teenaged girl who could not understand why she kept slitting her wrists and overdosing on barbiturates."*

With rare exceptions we are not born to our professions. The degree

Medicine, like life itself, is a circular affair—no fixed beginning, no finite end—it is a myriad of new beginnings.

can be earned in school, but one *becomes* a physician alone. The M.D. represents an academic milestone, a title, a commission to serve, but being an M.D. is a way of life. Schweitzer summed it up simply by saying: "He who needs me is my neighbor." Medicine, like life itself, is a circular affair—there is no fixed beginning—no finite end—it is a myriad of new beginnings.

It has been said that life must be understood backwards, but it certainly must be lived forwards. It is up to each of us to mold our own medical and personal lives. As physicians we have been given special privileges; we have thus incurred special obligations. We must give freely of our time and talents. If medicine is to lead the way, we must be citizens who participate in all aspects of life.

*Bressler DJ: Commentary: Notes from overground. *JAMA*, 245:16, 1637-1638, 1981.



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Indiana's Emergency Care Delivery System





Specially equipped vans and trucks comprise the emergency land transport system operated by Wishard Memorial Hospital. The vehicles, equipped to provide basic and advanced life support, are manned by EMTs and/or paramedics. EMTs spend about 120 hours in training to provide basic emergency care, while paramedics spend an additional 1,000 hours in training.



The heart of Wishard Hospital's emergency medical delivery system is its communications master control center. Its communications system includes telephone, Citizens Band radio, walkie-talkie and bio-telemetry.

THE ESTABLISHMENT of the Indiana Emergency Medical Services Commission in 1974 served as a major step toward improvement of pre-hospital emergency health care delivery. Today, emergency services at the William N. Wishard Memorial Hospital on the campus of the Indiana University School of Medicine, Indianapolis, are among the most up-to-date in the state. Two other Indianapolis hospitals, Methodist and St. Vincent, offer similarly fine facilities for tertiary care, with excellent secondary level facilities present in every major city in the state.

The EMS Commission has helped to create a fine-tuned emergency care delivery system throughout the state. Some 350 state-certified ambulance providers use Indiana's 400 paramedics and more than 11,000 currently certified emergency medical technicians (EMTs) to provide quality pre-hospital care to the state's 5½ million residents.

The Indiana Chapter of the American College of Emergency Physicians (ACEP) has helped to coordinate the proliferation and cooperation of the state's 300-plus full-time emergency physicians who coordinate the pre-hospital medical effort and stand ready to assist persons in need 24 hours a day in the hospital emergency departments.



Radio equipment adorns the dashboard of every ambulance—the vital link to the physician control which makes the Indiana EMS system work.

Emergency personnel manning ambulances are accountable to the emergency physicians who monitor their activities at the scene of medical emergencies via sophisticated communications equipment directly linking the hospital emergency department, its physician, and the EMT or paramedic at the scene.



Life Pac 5 provides an EKG readout at the scene, can administer cardiac shock treatment, and provides the hospital physician with a simultaneous EKG from the scene.

"The days of 'scoop and run' at accident scenes are over," says Dr. John C. Johnson, chairman of the Indiana EMS Commission. "On-site medical judgment and critical care treatment are now the priorities. Although experimental data may soon dispel the present concept that brain death occurs within five to 10 minutes after circulation ceases, today this maxim must be upheld and immediate care of the injured or diseased patient must be of paramount importance." Dr. Johnson says that secondary transport to a tertiary center after stabilization can be more leisurely after the initial, life-saving stabilization is complete.

Centers such as Wishard Hospital care for a large number of trauma patients, the "excitement" in pre-hospital care; but one cannot forget the cardiovascular, neurologic, pulmonary, renal, and neonatal prob-

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This article and photos were prepared under the supervision of Bruce H. Doles, Butler University MBA program.

Acknowledgments: David Wolf, M.D., for professional assistance; John C. Johnson, M.D., for editorial assistance; and David Perk and Barry Green for photographic support.

An article entitled "Ever Need an Ambulance?" which appeared in the June 1981 issue of THE JOURNAL, explained the levels of ambulance service certified by the state and which type of ambulance to call for emergencies. Physicians with further questions should contact the Indiana Emergency Medical Services Commission, Room 315, State Office Building, Indianapolis, Ind. 46204.

lems that represent an equally important challenge to pre-hospital personnel in their attempt to save lives and reduce morbidity.

Pre-hospital personnel and emergency physicians have invested a considerable amount of time and resources to provide Indiana with a worthwhile system for the delivery of emergency health care, both in the hospital and pre-hospital settings. Their reward is the reduction in morbidity and mortality that is effected on a daily basis across the state. "Even by a conservative estimate, based on national statistics," Dr. Johnson says, "every day in Indiana three people will live to walk the streets of their fair town tomorrow thanks to the Indiana EMS system."



All of the equipment necessary for the first five minutes of contact at an accident scene is available on each emergency vehicle operated by Wishard Hospital. Equipment locations are standardized to save time because crews often work interchangeably.

Terre Haute Academy Marks 60th Anniversary

The Terre Haute Academy of Medicine, dedicated to the pursuit of postgraduate medical education since its founding in 1921, celebrated its 60th anniversary Dec. 4.

The anniversary meeting—dinner meetings are conducted monthly except during the summer—was held in the Grille Room of the Gasthaus Stephan. Dr. John W. Jenne, professor of medicine at Loyola University Medical School, VA Hospital, addressed the group on "Chronic Obstructive Lung Disease: Diagnosis and Treatment."

Each meeting of the Academy features an outstanding guest speaker, according to Dr. Jack Weinbaum, a Terre Haute pathologist who serves as president of the 175-member Academy. Leading medical educators from Boston to San Francisco and from New Orleans to Montreal have discussed medical advancements at past meetings.

Originally open to membership by invitation only, membership is now open to all members of the Vigo County Medical Society, according to Dr. Alexander W. Cavins, a member of the Academy since 1931 and a past president. Today the Academy is an autonomous postgraduate medical education branch of the Society.

Upon its founding, the purpose of the organization was described as ". . . the advancement of the scientific practice of medicine and surgery, and the promotion of postgraduate education by bringing before it the leading medical teachers of this country. It shall assist the medical societies in fostering a fraternal feeling among physicians regardless of color, race or creed and in elevating their ethical standards."

The first incorporators of the Academy in 1921, who constituted the first directors, were F. H. Jett, J. H. Weinstein, W. D. Asbury, O. R. Spigler, C. N. Combs, George T. Johnson, A. M. Mitchell, Charles Wyeth, A. F. Knoefel, L. F. Barbazette, M. R. Combs and W. E. Stewart.

Based on an article by Doug Hunt which appeared in the Dec. 3, 1981, issue of *The Tribune*, Terre Haute, Ind.

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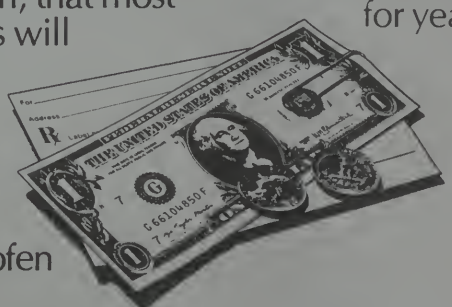
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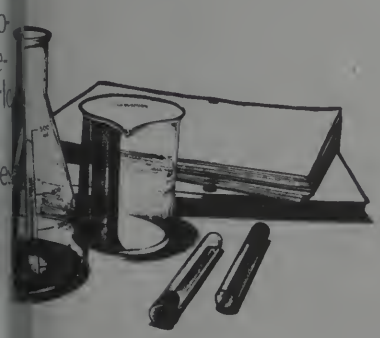
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WARNINGS: Anaphylactoid reactions have occurred in patients hypersensitive to aspirin (see CONTRAINDICATIONS). Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration, perforation, or gastrointestinal bleeding can end fatally; however, an association has not been established. Rufen should be given under close supervision to patients with a history of upper gastrointestinal tract disease, and only after consulting the ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be attempted. If Rufen must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

PRECAUTIONS: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If developed, discontinue Rufen and administer an ophthalmologic examination.

Fluid retention and edema have been associated with Rufen; caution should be used in patients with a history of cardiac decompensation.

Rufen can inhibit platelet aggregation and prolong bleeding time. Use with caution in patients with intrinsic coagulation defects and those taking anticoagulants.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy, this therapy should be tapered slowly when adding Rufen.

DRUG INTERACTION: *Coumarin-type anticoagulants.* The physician should be cautious when administering Rufen to patients on anticoagulants.

Aspirin. Concomitant use may decrease Rufen blood levels.

PREGNANCY AND NURSING MOTHERS: Rufen should not be taken during pregnancy nor by nursing mothers.

ADVERSE REACTIONS

Incidence greater than 1%

Gastrointestinal: The most frequent adverse reaction is gastrointestinal (4% to 16%). Includes nausea*, epigastric pain*, heartburn*, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence). **Central Nervous System:** dizziness*, headache, nervousness. **Dermatologic:** rash* (including maculopapular type), pruritus. **Special Senses:** tinnitus. **Metabolic:** decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: gastric or duodenal ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** depression, insomnia. **Dermatologic:** vesiculobullous eruptions, urticaria, erythema multiforme. **Special Senses:** amblyopia (see PRECAUTIONS). **Hematologic:** leukopenia, decreased hemoglobin and hematocrit. **Cardiovascular:** congestive heart failure in patients with marginal cardiac function, elevated blood pressure.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** paresthesias, hallucinations, dream abnormalities. **Dermatologic:** alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** gynecomastia, hypoglycemia. **Cardiovascular:** arrhythmias (Sinus tachycardia, bradycardia, and palpitations). **Renal:** decreased creatinine clearance, polyuria, azotemia.

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CAUTION: Federal law prohibits dispensing without prescription.

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As an organization accredited for continuing medical education, the Indiana University School of Medicine certifies that this CME activity meets the criteria for one credit hour in Category 1 for the Physician's Recognition Award of the American Medical Association, provided it is used and completed as designated.

To obtain Category 1 credit for this month's article, complete the quiz on Page 51.



Life-Threatening Complications of Duodenal Ulcer

JOHN L. GLOVER, M.D.
THOMAS A. BROADIE, M.D.
WORTHE S. HOLT, B.S.
Indianapolis

THE READY availability of endoscopy and the development of histamine antagonists have drastically changed the overall management of duodenal ulcer. Life-threatening complications occur less frequently than in the past; philosophies about operative management have changed; and nonoperative forms of treatment are available for bleeding. The purpose of this article is to review the options available and the rationale for their use in treatment of the most dire complications of duodenal ulcer: perforation and hemorrhage.

Perforated Ulcer

In 1900 J.M.T. Finney reported to the American Surgical Association a series of 268 cases of perforated ulcer treated by simple closure, with a mortality rate of 48%.[1] Although his report was relatively early in the history of gastric surgery, mortality rates remained about the same until Roscoe Graham's report, in 1937, of 51 consecutive cases with a "single primary mortality."[2] He advocated use of a patch of omentum to close the ulcer, saying "The procedure . . . could not be more simple; three interrupted catgut sutures are used . . . a piece of omentum, either free or attached, is laid over these structures which are then tied just sufficiently tight to hold the omental graft *in situ*, but not with sufficient force to cause the sutures to cut out, even in the most edematous indurated ulcer. No attempt is made actually to close the perforation."

He postulated that the omentum provided the stimulus and the scaffolding for formation of fibrin, which produced "the real closure." Finally, he pronounced additional procedures "meddlesome."

The "Graham Patch" was accepted quickly as the treatment of choice, and his low mortality rate became the standard to which other

From the Department of Surgery, Indiana University School of Medicine, 1001 W. 10th St., Indianapolis, Ind. 46202.

methods were compared. DeBakey's collective review of 15,340 cases treated between 1930 and 1940 was associated with 23.4% mortality.[3]

With time, earlier diagnosis, and better supportive care, mortality rates dropped further; and two divergent movements occurred toward the end of the 1950s.

The first was Sam Seeley's strong advocacy of non-operative management.[4] He reported only seven deaths in 139 cases managed in this manner and seemed convinced that they would have occurred even if surgery had been done. His premise was that the perforation would close spontaneously if the stomach could be kept empty; and his operative experience was that there was *routinely* an "effective natural seal," something that is contrary to the experience of many. His method has not been widely adopted and is generally reserved for moribund patients or those who are improving when first seen, obviously having perforated a few days before.

The other movement was the advocacy of a definitive operation at the time of closure. Pierandozzi, Hinshaw, and Stafford reported only one death in a series of 75 patients treated by vagotomy and pyloroplasty.[5] Such reports, even when the cases were selected (as these were), combined with reports of 60% of patients treated by simple closure requiring definitive operations,[6] started the trend toward definitive procedures.

This trend is actually a "swing of the pendulum" back to the era of Braun and von Haberer. Anesthesia is vastly improved; management of resuscitation and infection is essentially new compared to that era; and surgeons have become better technicians and physiologists.

During the past decade, advocates have developed for all the following options concerning management of perforated ulcer: simple closure; vagotomy and pyloroplasty; vagotomy and antrectomy; simple closure and proximal gastric vagotomy.

While each procedure has champions, there is increasing feeling that the perforation is an indication for a definitive operation and that the definitive procedure usually can be done safely at the time of closure of the perforation.

Griffen and Organ, in a review of 122 patients treated by closure, found a reoperation rate of 32% and a reperforation rate of 9%.[7] A smaller group treated by vagotomy and antrectomy obviously avoided these problems and had similar morbidity in other respects.

Kirkpatrick[8,9] has reported similar experience and made a strong argument for definitive surgery at the time of closure for the following reasons:

- Mortality is due to the age and condition of the patient, not the choice of operation;
- Symptoms prior to perforation do not identify the need for subsequent surgery; and
- Morbidity is high after simple closure.

In spite of these persuasive arguments, Aust, in a recent presentation,[10] and several discussors of Kirkpatrick's work make strong points for simple closure, especially in older, debilitated patients who delay seeking medical care.

The problem is twofold:

- It is hard to get statistically significant differences between comparable groups when the number of patients is small and the mortality rate is low; and
- Statistical significance will never totally replace individualization of acceptable treatments.

Consequently, we use the following guidelines in choosing management of perforated ulcer:

1) *Non-operative management* is used for two very different groups of patients: a) moribund patients; and b) patients who are hemodynamically stable and are obviously improving after a perforation that occurred a day or so earlier. There are a very few patients in this category.

2) *Simple closure*, usually with a Graham patch, is done for elderly, debilitated patients with gross contamination and a delay in treatment, as well as for any patient who is hypotensive during the procedure.

3) *Vagotomy and pyloroplasty* is done for the usual case of perforated ulcer.

4) *Vagotomy and antrectomy* is done for those patients whose perforation consists of extensive destruction of the proximal duodenum, either by erosion or thick scarring. It may also be done in some relatively young patients with less severe anatomic findings but with a long-standing history of severe ulcer problems, the rationale being to perform the procedure with the lowest incidence of recurrent disease.

Although we generally use these guidelines, we are attracted to the use of *proximal gastric vagotomy combined with simple closure.* The evolution of this form of treatment was summarized nicely by Jordan[11] as follows:

1) On the premise that definitive surgery was desirable and safe, a randomized study was begun to compare vagotomy and antrectomy with vagotomy and pyloroplasty to treat patients with perforated ulcer.

2) Vagotomy and pyloroplasty had about the same morbidity and mortality as vagotomy and antrectomy.

3) Some patients who might not have required surgery had significant side effects following vagotomy and pyloroplasty.

4) If a definitive procedure is to be adopted as part of the treatment of perforated ulcer, it should produce negligible mortality, no post-

operative gastric complaints, and reasonable protection against recurrent ulcer.

Sawyers and Herrington[12] report excellent results for use of proximal vagotomy in the treatment of perforated ulcer, and refer to a 0.3% mortality in 5,000 cases in Europe treated in this manner. Some have even advocated dilatation of the scarred pylorus at the time of closure, but a recent report from Brazil[13] indicates recurrence in about one-fourth of those with pyloric stenosis. Proximal gastric vagotomy is an attractive option and will probably be used more frequently to treat this life-threatening complication of peptic ulcer.

Hemorrhage

Bleeding is another complication of ulcer that may be life-threatening; and there is less controversy about the management of recurrent acute bleeding in spite of good medical management. Generally accepted guidelines defining this type of acute bleeding include syncope or postural hypotension associated with a fall in hematocrit to 25 or less and requirement of three or more units of blood to restore normal vital signs. Failure of such bleeding to stop or its subsequent recurrence after vigorous non-operative treatment obviously requires an operation, and the precise timing usually can be individualized for the patient. Three items relevant to managment of these patients merit special discussion.

First is *endoscopy,* which has become the single most useful measure in establishing the diagnosis and planning treatment. Thompson, for example, reported 96% accuracy of diagnosis (including their learning curve) which is far superior to the 67% reported in 200 cases of fatal hemorrhage reported by Berkowitz in 1963.[14,15] There is a significant interest in surgical trainees learning endoscopy, but the discipline to which the endoscopist belongs is obviously far less important than his skill and availability. There is far too great a tendency to defer the study if there is the slightest suggestion that the gastric lavage is clearing.

Embolization may be useful in controlling severe hemorrhage in patients who are prohibitive operative risks, and it is generally more effective for duodenal bleeding than infusion of vasopressin.[16]

Endoscopic coagulation will very likely assume increasing importance in the next decade. Electrosurgical and laser technology will undoubtedly produce better instruments that will minimize the chances of perforation with their use.

The great danger in regard to treating bleeding ulcers is to confuse bleeding with profuse hemorrhage. There are still a few patients who hemorrhage profusely and will remain in profound shock until a suture is placed in the spurting artery, and interest in diagnosis or nonsurgical management must never cause the death of one of these patients in the endoscopy or angiography suite.

Life-Threatening Complications of Treatment

Two surgical complications deserve specific mention because they are life-threatening.

First is *pulmonary embolism.* Although most surgeons are generally aware of the reports of an incidence of post-operative venous thrombosis as high as 40% in obese patients after upper abdominal surgery, there is, at best, sporadic use of prophylactic measures in these cases. One reason is the concern about bleeding; another is the ready availability of noninvasive testing for venous thrombosis, sometimes on a "screening" basis. We must not forget that patients who have bled recently have an increased risk for venous thrombosis, that the clinical diagnosis of venous thrombosis is correct only half the time, and that noninvasive techniques are unreliable for detecting clots in veins below the knee.[17] Methods to prevent venous thrombosis should be considered in all patients with life-threatening complications of ulcer; if one is reluctant to use mini-dose heparin, mechanical compression is available.

The other life-threatening postoperative complication is *blow-out of the duodenal stump,* a syndrome characterized by the sudden onset of abdominal pain on the third or fourth day after Billroth II gastrectomy. Tachycardia is constant and may raise the suspicion of pulmonary embolism. If fever is not present in the acute episode, it follows quickly.[18] This complication is frequently fatal if not recognized promptly and treated surgically. General adoption of the Billroth I method of reconstruction prevents this complication and is not associated with a similar incidence of its analogue, leaking at the gastroduodenal anastomosis.

Discussion

Prior to 1970, medical and surgical treatment for duodenal ulcer was relatively standard. Subsequently, many new options developed; and it seems likely that they will increase in number and complexity in the coming decade. Earlier and better recognition of the characteristics of the ulcer have decreased the incidence of life-threatening complications, as well as physicians' sensitivity to the likelihood of their development, especially that of exsanguination from duodenal ulcer. Consequently, it behooves us not only to be aware of the changes of management but also to be more alert than ever to the signs of hemorrhage and perforation in order to prevent unwarranted death from a benign disease.

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Metal Sensitivity or the Case of the Oozing Earlobes

Clinical Notes

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THE PRACTICE OF piercing ears has recently come back into vogue and this has been followed by an increase in sensitivity to nickel. If steel posts containing free nickel are worn during the healing period, susceptible subjects develop a contact allergy that causes chronic oozing and prevents healing. In some alloys, e.g. stainless steel, nickel is present in high concentration, but it does not cause sensitization because it is too tightly bound in the alloy to be reached by sweat.[1]

The incidence of nickel sensitivity in patients with contact dermatitis ranges from 4.7% in Australia[2] to 11.0% in North America[3] and in the United States, it is even 5.8% in the general population.[4] Women are about 10 times as prone to nickel sensitivity as men[4] probably due to the increased opportunity for exposure.

The diagnosis of nickel sensitivity is often obvious when an eczematous eruption occurs where the ears have been pierced. It should be suspected when the dermatitis underlies a metal object, e.g. a watchband, a necklace, eyeglasses with metallic rims, a metal button on blue jeans, a metal clasp on clothing or underclothing or under the metallic part of a prosthesis. Gold rings are not a problem since contact allergy to metallic gold is rare and free nickel is not present in most rings.

Many metallic orthopedic implants contain nickel and these may, on occasion, cause reactions.[5] Fortunately, most are made of stainless steel and while reactions have been reported, they are not common.

Hand eczema has been reported in nickel sensitive persons from the ingestion of the metal in food.[6] This can occur from foodstuffs that contain nickel naturally or are contaminated by the container in which they are kept or cooked. For example, canned foods of almost any kind and acid foods cooked in stainless steel may contain nickel in a clinically important concentration. Oral nickel has been reported to cause flares in hand eczema and pompholyx-like lesions.

Patch testing can be done with 2.5% nickel sulphate in an aqueous solution or by simply applying a smooth metal object such as a nickel coin (not one minted during World War II). The patches are removed after two days and the test is read either at 48 or 72 hours. False-positive reactions can occur that mimic a positive (eczematous) patch test response, but such "irritant" reactions are pustular, do not spread, and are nonpruritic.[7]

The best treatment of nickel allergy is avoidance, but one can wear stainless steel products and hypoallergenic jewelry (no free nickel). Sometimes one can temporarily wear an offending item of jewelry after spraying the skin and the article with an aerosol of triamcinolone or dexamethasone[7] or by coating the object with polyurethane lacquer, although I have found the latter to produce less than optimal results.

The Nickel Spot Test[8] can be used to find or confirm problem materials. In this test, a drop of 1% dimethylglyoxime in alcohol is placed on a cotton-tipped applicator along with a drop of 10% ammonium hydroxide solution. The metal object is gently rubbed with the wet applicator surface and a red color proves there is free nickel present. This procedure may not always be sensitive enough to pick up metal contamination of foodstuffs, but it has been used for that purpose also. The test does not harm items of jewelry and it can actually be done before purchasing the item provided the storekeeper understands, or is unaware of the procedure.

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Perforation of the Rectum by Too Large a Bardex Balloon Catheter

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This article, originally published in the November 1981 issue of THE JOURNAL, is reprinted because certain portions of the text in the first printing were inadvertently transposed during production.

A NUMBER OF YEARS ago an attorney asked me to review a file on an elderly client of his; the patient had sustained a perforation of the rectum during a barium enema, done with a Bardex balloon rectal catheter. I could find nothing wrong with the technique from the information I had, and reported so to the attorney. He was disappointed.

Since then I have had a similar case of perforation of the rectum. I am relieved that I did not find fault with the other radiologist years before.

Case Presentation

Chief Complaint: The patient was transferred from a nursing home due to weight loss, loss of appetite, and an episode of "smothering sensation."

History of Present Illness: The patient is a 66-year-old white woman who was admitted from a nursing home with the above symptoms and with the admitting diagnosis of weight loss and rule out malabsorption syndrome. The patient's memory is poor. At times the patient is apparently incontinent of urine and feces.

Physicial Examination: At the time of admission, the patient was lying supine and was conscious. There were no signs of distress. She appeared much older than her stated age of 66 years. She had generalized dry and flaking skin. Blood pressure was 90/60. Pulse was 60 and regular. Respirations were 16. Temperature was 36°C. She was unable to stand for height and weight recordings. There was no examination with a sigmoidoscope or proctoscope.

Normal bowel sounds were present in the abdomen. The patient was not tender to abdominal examination. No masses were felt. During the work-up a barium enema examination of the colon was ordered.

Course: When the patient came to the x-ray department, an attempt at a barium enema was done with a Bardex balloon catheter that had received five pumps of the Baumanometer bulb—an estimated 150cc of air injected. The patient had considerable loss of anal sphincter tone, noted prior to insertion of the Bardex balloon catheter. One spot film was made of the rectosigmoid, and much feces was apparent in the colon. The patient strained a great deal and expelled the inflated balloon catheter, bar-



Fig. 1: The large Bardex balloon in the rectum is seen. There is passage of barium sulfate out of the rectum into the soft tissue on the left of the rectum. The barium is also dissecting proximally toward the rectosigmoid on the right.

The author is certified by the American Board of Radiology and is a member of the Radiological Society of North America, the International College of Surgeons and the American Roentgen Ray Society.



Fig. 2: The barium filled colon appears grossly normal, except for the perforation around the rectum.

ium, and feces on the x-ray table top; so we cleaned her up and again inserted the Bardex balloon catheter. After five pumps she was still leaking feces and barium; so the balloon was pumped to a considerably larger size by the technologist. About 15 pumps of the Baumanometer bulb were used to inflate the Bardex balloon, and this would be about 450cc of air.

At fluoroscopy the second time, I saw a large Bardex balloon catheter. It held this time, and we were able to fill the colon despite the patient's straining.

Unfortunately, the films showed a perforation of the rectum with some barium in the soft tissue around the rectum and dissecting toward the rectosigmoid, proximally. This perforation was not present on the initial spot film of the rectosigmoid, made during the first attempt to fill the colon.

The attending physician and surgeon were notified promptly of this extra-peritoneal perforation of the rectum, with barium in the soft tissue alongside the rectum.

The films showed some scattered feces still present in the colon, even after the patient had evacuated the first time. But there was no good evidence for a tumor of the colon. I did not see any inflammatory disease involving the colon. There was some redundancy of the colon, consistent with constipation.

Post-evacuation films showed extra-peritoneal barium in the soft tissues around the rectum and sigmoid. There was still much barium in the colon on the post-evacuation films.

The patient was taken to surgery promptly and, under general anesthesia, the abdomen was opened. Exploration of the abdomen disclosed several diverticula in the lower part of the descending colon and sigmoid colon. The peritoneum covering the pelvic cavity was edematous and showed signs of internal bleeding, but the peritoneum was intact. Much sero-sanguinous fluid was removed from the pelvic cavity. No gross perforation of the peritoneum was found. Other parts of the abdomen were essentially normal. The descending and transverse colon contained several diverticula, but no signs of inflammation. The small bowel, stomach, liver, spleen and pancreas were felt to be normal.

Because of the perforation of the rectum, a transverse colostomy to divert the fecal stream was created. The patient tolerated the surgery fairly well.

Postoperatively there was some loss of tone in the intestines, treated with a naso-gastric suction tube and intravenous liquids. Antibiotics and Sol-U-Medrol were given intravenously.

There was some hypotension postoperatively, and this was corrected with Levophed intravenously, infused slowly, which kept the blood pressure within a normal range.

Also after surgery, because of the patient's poor appetite and her reluctance to eat, it was necessary to insert a feeding tube for most of the hospitalization. Toward the end of the hospital stay, the patient re-



Fig. 3: Most of the barium remains in the colon after removal of the Bardex balloon rectal catheter. The abnormal barium is seen around the rectum and near the rectosigmoid. There are heavy metal deposits in the buttocks.

moved the feeding tube herself and would not tolerate it.

It was thought that the patient's lack of cooperation and confusion were secondary to cerebral arteriosclerosis.

At the end of the hospitalization the patient was still draining a purulent discharge from the rectum. This was cultured and revealed infection with *Pseudomonas aeruginosa,* sensitive to Amiken and Carbenicillin.

At the time of discharge the patient was sitting up in a chair on a daily basis.

X-ray Films: Pertinent films are reproduced.

Discussion

Barium sulfate itself is non-toxic, but the body often forms foreign body granulomas around it. If the barium sulfate is contaminated with feces, there can be a violent inflammatory reaction and infection due to the feces.

In the past I thought that the rectum could tolerate any size balloon including a very large Bardex balloon catheter, because of the large capacity of the rectal ampulla and the circumferential support from the soft tissue around the rectum. The intramural change in pressure across the wall of the rectum, even with a large balloon, should be very small because of this circumferential support from surrounding soft tissue. This situation in the rectum is different from that of the rest of the colon and the small intestine, where there is no circumferential soft tissue. It is the difference between poking a hole in a disposable paper tissue held in the air by the hands of another person, and trying to poke a hole in the same paper tissue when it is lying on a tabletop—where there is little change in intramural pressure within the tissue because of the support of the tabletop which takes all the pressure change.



Fig. 4: This film was made 13 days after the perforation of the rectum and surgery to explore the abdomen and create a colostomy. The intestines are still dilated by reflex loss of tone. There is also dilation of the stomach. The barium in the peri-rectal soft tissue remains prominent.

Burt[2] showed in his classic autopsy data that the rectums dissected out of the pelvis of three adult patients perforated at 109, 198, and 258 mm Hg; these were the pressures at which the mucosa perforated.

Nathan and Kohen[4] reported 24 cases with volumes of air in the balloons ranging from 150cc to 350cc and resulting pressures on the rectum of 0 to 43 mm Hg. In two patients requiring unusual insufflation of the Bardex catheter, 450cc was used in one and created 20 mm Hg. pressure against the rectal wall; the second required 650cc air and created 30 mm Hg rectal pressure.[5] These large sizes were needed to prevent expulsion of the barium enema.

I have used large Bardex balloon catheters in the rectum in the past when no other way was feasible, and I have always thought that it was safe—that I would not perforate the rectum—because of the data mentioned above.

But after the experience with this patient, I do not feel so secure as I once did. It is apparent that rarely these large balloons can split the mucosa and cause extraperitoneal leakage of barium and feces, and a barium granuloma may form. While death usually is not a problem, subsequent painful abscess and recurrent infections with discharge can be a problem.

The likelihood of loss of elastic tissue in this patient came to mind. She looked older than 66 years of age; one physician said, "She appears ancient." Another said, "She looks about 90." Examination of a fragment of skin from the surgery done to create the colostomy was done with Verhoeff's elastic stain, to evaluate the tissue for elastic tissue. The pathologist reported, "Normal elastic tissue content."

One could also conjecture about the long range effects from the old lues, treated in the remote past.

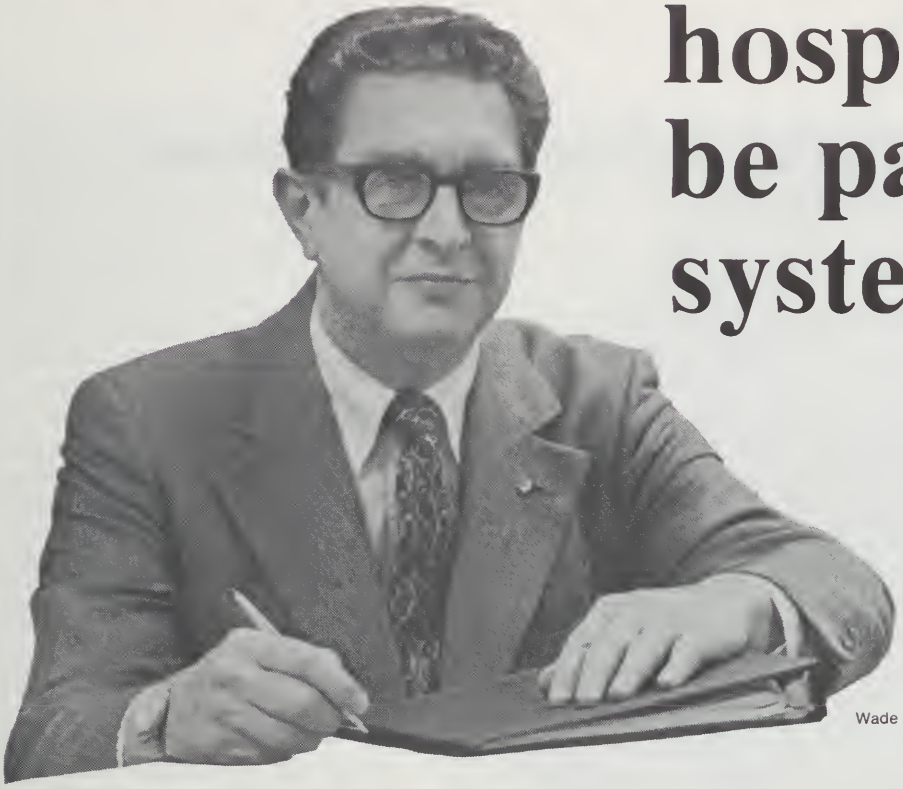
Summary

It is difficult to set the limits on rectal catheter balloon size, particularly when one is trying to get the job done—to examine an incontinent patient.

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Radiation Therapy of Colorectal Carcinoma

ABSTRACT

Preoperative irradiation of the whole pelvis has demonstrated improved survival in rectosigmoid carcinoma, because local recurrence is the only failure in 50% of recurrences. Preop radiation may make unresectable patients operable. Patients without preop radiation at high risk for recurrence, muscle penetration to serosa (B2) or + lymph nodes (C) may benefit from postoperative radiation. Only a few patients with postsurgical recurrence can be salvaged, but radiation frequently relieves pain and bleeding. To effect a cure, surgical excision is still necessary because of radioresistance of gross adenocarcinoma.

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COLORECTAL ADENOCARCINOMA is the most common internal malignancy and the second leading cause of cancer death in this country. Over 100,000 new cases and 50,000 deaths each year occur from this disease.[1] More people die from colorectal cancer than are killed on our nation's highways. Because two-thirds of these cancers are in people over 50[1] and our population is living longer, adenocarcinoma of the colon is increasing. Since surgical cure rates have not improved in 30 years,[2] this article discusses improvement in survival with adjuvant radiotherapy.

Almost all cancers can be cured if diagnosis and treatment are done early while the cancer is confined to the primary site and the number of tumor cells is relatively small. Hemoccult stool screening, air contrast barium enema, and colonoscopy make early diagnosis possible. Over half of all colon cancers are within reach of the proctoscope. Colon cancer is associated with the low fiber high animal protein diet of Western civilization. It is also associated with chronic ulcerative colitis and polyps larger than 1 cm, especially villous adenomas. Familial polyposis coli requires total colectomy at an early age to prevent death from adenocarcinoma of the colon.[1]

Surgery

The treatment of choice is surgical excision with no residual tumor and free surgical margins. Excellent results are obtained for stages A and B1 (into but not through the muscularis). But, local recurrence is reported as high as 43% in tumors penetrating through the muscularis into the serosa (B2) or lymph nodes (C). Anaplasia also increases the risk of local recurrence. More than 80% of regional recurrences are contiguous to the operative site and occur by the end of the second postoperative year. One-half of recurrences present by the end of the first year.[3]

From autopsy data, Gilbertsen reported that one-half of 125 patients dying after only surgery for rectal carcinoma, died of only local recurrence.[4,5] Gunderson found that local regional failure remained the only failure in 50% of 52 rectal carcinoma surgical failures at second look laparotomy. In the remaining 44%, local recurrence occurred in combination with distant metastases. Recurrence by distant metastases alone was rare in carcinoma

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of the rectum, although it may be as high as 26% in cancer of the upper colon.[3,6]

In the 61 patients with rectal carcinoma metastatic to lymph nodes, 70% had failure after surgery. If the patient had complete bowel wall penetration (B2, B3) with or without + nodes (C2, C3), then 83% (34 of 40) had recurrent cancer[6] and the five-year survival declined to 23%.[7] Forty to 60% of rectal carcinoma patients present with stage C (+ nodes).[2,8,9]

It is well established that the principal cause of surgical failure in operable patients is local regional recurrence, especially in lesions below the peritoneal reflection or when the cancer has gone through the muscularis (B2) or involved the nodes (C). Surgical cure rates have not improved despite many surgical advances in the past 30 years.[2] The overall five-year survival for colorectal carcinoma remains 50% and for rectal carcinoma 30%.[4,5]



FIGURE 1: Simulator verification port film of whole pelvis field, including all pelvic lymph nodes and rectal scar marked by lead pellet.

Preoperative Radiation

There are several well documented clinical trials which show improved survival, fewer deaths from cancer, less recurrence, and downstaging at the time of surgery following preop radiation.

As early as 1959 Stearns reported that stage C (+ nodes) rectal carcinoma patients had only 23% five-year survival while 37% survived five years with preop radiation.[10] This improvement occurred despite inadequate doses and poorly penetrating orthovoltage machines.

Kligerman at Yale randomized half of 15 patients with rectal carcinoma to preop whole pelvis radiation of 4,500 rads. An additional 18 patients were inoperable and given preop radiation without randomization. Seven-year survival was 41% as opposed to .25% for those treated with abdominoperineal resection alone. Only 27% had + nodes in the irradiated group as compared to 40% in the surgery-only group.[11]

Stevens at University of Oregon reported an increase in five-year survival from 38% to 53% and an absence of pelvic recurrence in 40 patients with rectal carcinoma who subsequently had a curative resection after 5,000 rads preop.[12] Thirteen patients became suitable for abdominal resection following 5,000 rads instead of abdominoperineal resection, thereby sparing the rectum and saving the patient from colostomy.[13]

The most statistically significant VASAG reports the largest group of 700 patients all at five-year risk, half of whom were randomized to 2,500 rads preop and half treated by abdominoperineal resection only. The five-year survival for the irradiated group was 41% compared to 28% for unirradiated controls.[14]

Pilepich at Tufts Medical Center, Boston, reported that complete resection was possible in 27 of 40 inoperable patients with rectosigmoid cancer following 5,000 rads preop. At initial laparotomy the most common cause of unresectability was fixation to the sacrum, pelvic brim, and pelvic sidewalls. Twenty-two patients remained disease free for a median follow-up of 27 months. No recurrences were seen after the first 22 months, indicating that survivors longer than 22 months might be cured.[15]

Postoperative Adjuvant Radiation

Elective adjuvant radiation after surgical excision of all gross disease is effective at sterilizing microscopic residual so long as cancer has not spread outside the portal.

Turner at the Einstein College of

TABLE 1. Astler-Coller Modification of Dukes Staging

A	Limited to submucosa	
B1	Extension into but not through muscularies	negative nodes
B2	Extension to or through serosa	negative nodes
B3	Involvement of adjacent organs	negative nodes
C1	Limited to serosa	positive nodes
C2	Extension through serosa	positive nodes
C3	Involvement of adjacent organs	positive nodes
D	Distant metastases	

Medicine in New York reported 40 patients at high risk for recurrence, stages B2 and C, given postop radiation for microscopic residual. Of 21 patients with lesions above the midsigmoid, 52% were alive two years with no evidence of disease. Of 19 patients with rectosigmoid lesions, 74% were alive at two years with no evidence of disease.[16]

Whithers at MD Anderson Hospital reported a reduction in local recurrence rate of stages B2, B3, C2, and C3 carcinoma of the rectosigmoid when given 4,500 rads after curative resection.[17]

Palliation

If a patient presents with adenocarcinoma in the liver, he is incurable and should receive only palliative therapy to relieve symptoms without causing more discomfort.

A diverting colostomy or resection should be done before radiotherapy, if obstruction is imminent, even in patients still curable. Diverting colostomy may provide effective palliation in patients not curable.

Rao at Kaiser Permanente, Los Angeles, reported 14% of 37 patients with postop recurrent stage B2 rectal carcinoma alive 24-48 months after radical radiation of 5,000 rads. Only a few patients with postop recurrence can be salvaged by radiation. (However, they also reported that 40% of 15 patients who received adjuvant preop or postop radiotherapy survived 19-77 months). In 92 patients treated for palliation with modest doses, pain was completely relieved in 55%, partially relieved in 29%, and not relieved in 16%. Bleeding was relieved in 70%.[18]

Endorectal Teletherapy

Moderately well differentiated stage A rectal carcinoma no larger than 5 cm and located within 10 cm of the anal verge can be safely and primarily irradiated through a 3 cm proctoscope with a specially adapted superficial 50 kv x-ray unit. This technique has been pioneered by Jean Papillon, Lyon, France, who reports 190 patients followed five years with a death rate from cancer of only 10%. Treatment is once every two weeks with the patient in the knee-chest position after careful localization with the specially designed proctoscope. The superficial x-rays do not penetrate enough to cause any symptoms other than temporary mucous discharge. Rectal function is spared.[19]

Complications

Stevens reported that two of nine patients with rectal carcinoma given preop radiation developed anastomotic leaks when irradiated rectum was used immediately after radiation to form the reanastomosis. They suggested a temporary "protective colostomy" when irradiated rectum is used to form a reanastomosis. Four patients given preop radiation who had a colostomy closed later developed no leaks. The 13 patients given preop radiation had lower incidence of pelvic tumor recurrence than 79 patients treated with anterior resection alone.[13]

In Turner's 40 patients given postop radiation, one died of radiation enteritis after whole abdominal radiation.[16]

The highest rate of late serious stenosis, necrosis, and fistula occurred in 29% of 24 patients with residual or recurrent rectal carcinoma given 6,000 rads of Co^{60} and concomitant 5 FU.[20]

Highly penetrating, high energy x-rays deliver the dose deeper and spare the superficial intestines; hence, super voltage x-rays are preferred.

Whithers and others believe the rate of complications increases substantially unless the volume is confined to the pelvis and the dose limited to 5,000 rads in five weeks.[17]

Summary

There may not be sufficient evidence to recommend preop radiation for adenocarcinoma of the colon above the peritoneal reflection and subsequently resected with primary reanastomosis. The failure of preop radiation to improve survival for these may be due to the better surgical survival over rectosigmoid tumors and the increased death rate from distant metastases in high colonic tumors compared to rectosigmoid lesions.

However, since the rate of recurrence is high in lesions invading the muscularis (B2) or involving the lymph nodes (C), a course of postop radiation should be considered. Marking the periphery of the tumor with hemoclips will aid radiographic localization.

In cancers below the peritoneal reflection and subsequently treated with colostomy, there are many published clinical trials document-

ing the improved survival from preop radiation. Even a few unresectable patients may become resectable after tumor shrinkage. Some lesions located in a borderline location for colostomy may become candidates for resection and primary reanastomosis after a rest to allow irradiated rectum to heal. Unfortunately, the optimum dose fractionation has not been determined but probably is between 2,000 rads/two weeks and 5,000 rads/six weeks. The improvement in survival from preop radiation occurs because microscopic disease in regional nodes is sterilized, the primary tumor is reduced in size (aiding resectability) and cancer cells rendered nonviable in the event of surgical dissemination. Resection of residual adenocarcinoma is still necessary because of radioresistance of gross disease.

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Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	TARACTAN	TINACTIN
Category:	Antipsychotic	Antifungal
Brand Name:	Taractan, Roche	Tinactin, Schering
Generic Name:	Chlorprothixene	Tolnaftate
Dosage Forms:	Tablets, Injection, Concentrate	Cream, Powder, Solution, Powder for Aerosol

	VIGRAN	WIGRAINE
Category:	Multivitamin	Migraine
Brand Name:	Vigran, Squibb	Wigraine, Organon
Generic Name:	Multivitamin prep.	Ergotamine-caffeine-Phenobarbital-Belladonna combination
Dosage Forms:	Tablets, Chewable Tablets	Tablets, Suppositories

Recurrent Thrombocytopenia Caused by Accessory Spleen: A Case Report

JAMES A. MADURA, M.D.
PHILIP JOHNSON, M.D.
ROBERT J. ROHN, M.D.
Indianapolis

ACCESSORY SPLEENS have been reported to occur in 10%[6] to 35%[14] of autopsy cases. An increased incidence of accessory spleens in patients with hematologic disease has been suggested by Olsen and Beaudoin,[15] but this may be due to a more diligent search for the accessory spleen and possibly an increased size of the spleens in this population of patients.

Although usually small and of no clinical significance, occasionally an accessory spleen becomes clinically important because of its size, location or pathologic function. This case report concerns the latter, with a functioning accessory spleen causing recurrent thrombocyopenia 20 years after splenectomy.

Case Report

The patient was found at age 5 years to have thrombocytopenia. He initially responded well to steroids, but subsequently developed recurrent fevers and repeated upper respiratory infections. At age 7, physical exam revealed splenomegaly, and repeated blood counts found WBCs as low as 3,000/mm^3, and platelets averaging 168,000/mm^3 (normal=400,000—1,000,000). Elective splenectomy was carried out for his hypersplenism. His spleen weighed 135 grams and histopathologically demonstrated only hyperplasia.

At age 14 the patient was re-admitted with the acute onset of urinary retention and visual problems. Evaluation at that time concluded that the patient was suffering from multiple sclerosis. Treatment consisted of 6-mercaptopurine for three years with symptoms resolving, and he has remained neurologically asymptomatic since.



FIGURE 1: Liver-spleen scan, 1976, posterior view, demonstrating left upper quadrant radioactivity.

The patient did well until age 22 years when he was re-admitted for petechiae, bleeding gums and easy bruising. Admitting labs revealed a WBC of 6,900/mm^3 and platelets of 10,880/mm^3. Abdominal ultrasound and computerized axial tomography (CAT) revealed enlarged periaortic nodes, a left suprarenal mass and a large right infrarenal mass. A liver-spleen scan showed left upper quadrant uptake resembling spleen, in spite of the past history of splenectomy (*Figure 1*).

Steroids were administered to in-

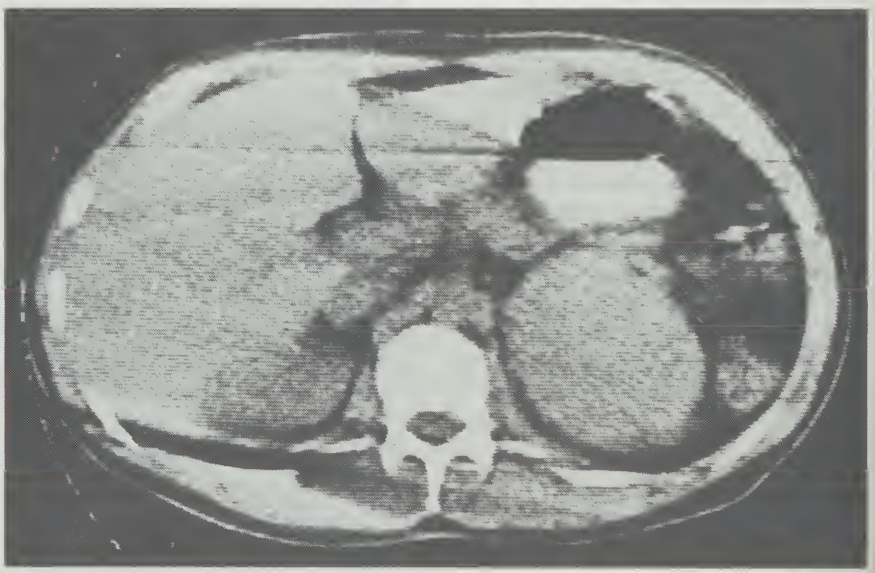


FIGURE 2: Computerized actual tomography, October 1979, demonstrating retrogastric mass in suprarenal position.

From the Department of Surgery, Indiana University School of Medicine, 1100 W. Michigan St., Indianapolis, Ind. 46223.



FIGURE 3: Liver-spleen scan, 1979, anterior and posterior views, demonstrating uptake in area of splenic fossa.

crease the platelet count and he was taken to surgery for biopsies of the abdominal masses. The surgeon reported finding no spleen in the area shown by the liver-spleen scan, but a right periaortic node was excised and demonstrated a malignant lymphoma, diffuse mixed cell type. The patient was started on multi-drug chemotherapy, which was continued for three years, after which repeat abdominal ultrasound and CAT scans were read as normal, and the patient was thought to be in complete remission.

In October 1979, at age 25, the patient again noted ankle petechiae. His peripheral blood smear revealed thrombocytopenia and an abdominal ultrasound and CAT scan showed a left suprarenal mass. (*Figure 2*). A liver-spleen scan again was interpreted as showing a normal liver and spleen (*Figure 3*).

In view of his recurrent thrombocytopenia and past history of splenectomy, the area of radionuclide uptake in the left upper quadrant was felt to be consistent with an accessory spleen. A pre-operative WBC was 11,000/mm^3 and platelets were 173,000/mm^3 (normal=400,000—1,000,000).

At surgery, what appeared to be a rather large accessory spleen was located posterior to and along the greater curvature of the stomach (*Figure 4*). The blood supply appeared to be coming from a post-gastric branch of the left gastric artery, as well as the vasa brevia. A large dilated gastro-epiploic vein was seen coursing over the spleen (*Figure 5*).



FIGURE 4: Operative view of mass along greater curvature of stomach, with large gastroepiploic vein, coursing over its antrial-medial surface.

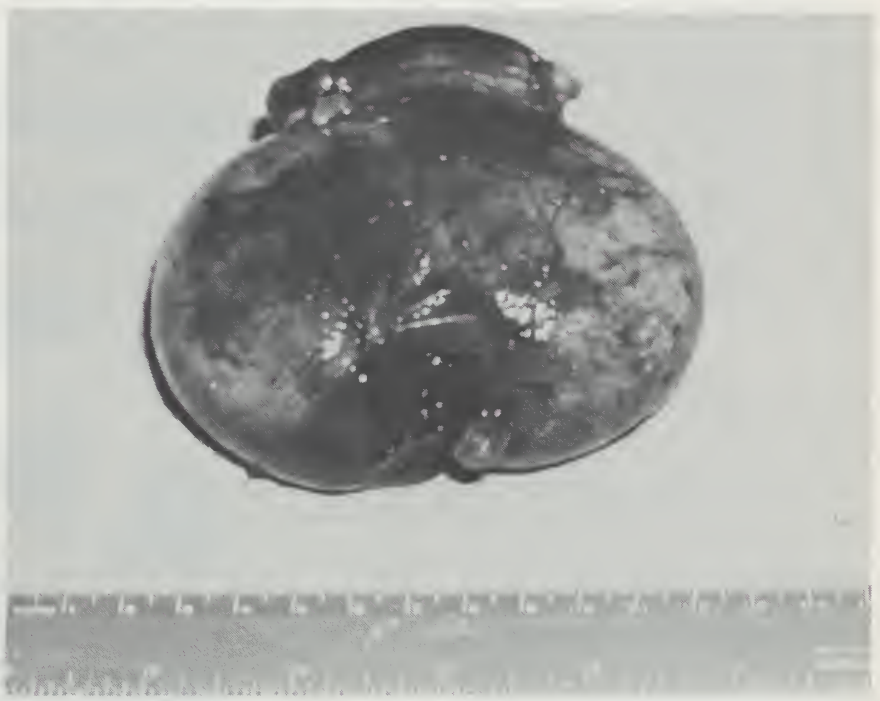


FIGURE 5: Post excisional view of accessory spleen, which weighed 163 grams.

The pathology report showed the accessory spleen to weigh 163 grams with no microscopic pathology. A lymph node from the area of the previously biopsied lymphoma in the right periaortic area revealed only fibrosis and dystrophic calcification. Immediate post-op labs showed WBC of 25,200/mm^3, and platelets of 1,003,200/mm^3.

The patient did quite well and was discharged on the fifth post-operative day. At discharge his WBC was 10,800/mm^3, and the platelet count was 1,429,520/mm^3. He has remained well both symptomatically and hematologically since that time.

Discussion

The spleen develops on the left side of the dorsal mesogastrium by three months of gestation. It is felt to arise from the coalescence of several small mesodermal masses. Failure of complete coalescence of these embryonic masses is the most likely explanation for accessory spleens located in, or around, the splenic hilum and the tail of the pancreas, and the various "ligaments" of the spleen. However, reports of accessory spleens located in the greater omentum, mesentery and scrotum are not as easily explained.

Several theories have been postulated to explain accessory spleens in these locations, including simultaneous development of splenic tissue from several anlagen or an intrauterine disturbance leading to true teratogenesis.[6] As pointed out by Cahalane and Kiesselbach,[6] if the latter theory is true, then other organ systems might also be expected to undergo teratogenic changes. In a review of 945 pediatric necropsies, accessory spleens occurred in 10% with more than half of these showing other congenital malformations.[6]

The accuracy of diagnosing accessory splenic tissue has greatly improved with recently developed nuclear scanning techniques. Initially, heat treated red blood cells tagged with ^{51}Cr were used to scan the spleen but the method was tedious. With the development of ^{99m}Tc-labeled sulphur colloid, scanning the spleen, liver and bone marrow has been made easier.[3]

The ^{99m}Tc liver-spleen scan, along with abdominal ultrasound and abdominal CAT scan, were the diagnostic procedures used prior to surgery in the current case.

Ball reports abberrant liver tissue presenting as an accessory spleen.[3] If there is a question about the origin of tissue in the left upper quadrant, either heat-treated ^{51}Cr-labeled RBCs or ^{99m}Tc-labeled injured RBCs will specifically be taken up by splenic tissue. Kaude[13] reports diagnosing 33 accessory spleens by celiac angiography. His frequency of accessory spleens in 3% of the studied patients is much lower than many autopsy studies, which may be due to the occurrence of accessory spleens outside the vascular bed of the celiac artery.

A simple initial evaluation of a patient with suspected residual splenic tissue may be done by looking for Howell-Jolly bodies in a peripheral smear. Crosby states that Howell-Jolly bodies are a sensitive sign of absent splenic function, and that their presence means insufficient splenic tissue to cause trouble.[8]

A review of the literature shows several reports in which accessory spleens have become clinically important. These include cases of infarction or torsion,[5,17] rupture,[9,20] and simulation of suprarenal or renal tumors,[18,19] gastric neoplasm[7,11] or recurrence of cytopenic hematologic disease after splenectomy.[1,4,10,12,21]

In a review from the Mayo Clinic[21] 15 patients were treated who had accessory splenectomy for recurrent ITP.[21] In this group of patients, of the nine seen in follow-up, three had a good response over one to three years, one was somewhat improved (needed less steroids), and five seemed to be only minimally affected or not affected at all. Six patients were lost to follow-up. In that report, the size of the accessory spleen seemed to have some prognostic significance with the larger spleens (more than 20 grams or 4cm in diameter) having a better response to surgery.

The surgical lesson of primary importance to be learned is that ectopic splenic tissue occurs at a very high rate—one in five patients. In those patients with cytopenic hematologic disorders, a diligent search should be made for accessory splenic tissue in the most frequent areas of occurrence in the perisplenic ligaments to preclude the problem presented by the patient in this report. In addition, patients with thrombocytopenias who "fail to respond" to splenectomy or who develop recurrent thrombocytopenia should be diligently studied to rule out a surgical cause for their persistent or recurrent hematologic disorder.

Summary

This report presents a case of recurrent thrombocytopenia due to the presence of an accessory spleen 18 years after splenectomy. It emphasizes, as several authors have done previously, the need to thoroughly search for residual splenic tissue at the time of initial splenectomy. Nuclear scans, the absence of Howell-Jolly bodies, ultrasound, CAT scan and even angiography can be utilized in the diagnosis of accessory splenic tissue. The usefulness of accessory splenectomy in all cases is questionable.[21] It seems clear, however, that removal of the larger residual accessory splenic tissue is appropriate and would be expected to be followed by improvement in the hematologic cytopenic state.

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A Doctor, A Legend

James O. Ritchey, M.D. (1891-1981)

In Memoriam



J. O. Ritchey, M.D.
1964

DURING HIS 90 years, Dr. James O. Ritchey became dean of Indiana physicians, an honored teacher, gentleman, wise practitioner, able judge of those aspiring to the medical profession, and strong positive influence on thousands of young doctors. (He died Dec. 4, 1981. See related story on Page 74.)

One of eight children of a Carroll County farm family, he decided at 3 he wanted to be a doctor and won his medical degree in 1918 with highest honor from the Indiana University School of Medicine and his master's degree cum laude in 1921.

Private practitioner, part-time instructor on the I.U. medical faculty, chairman of the Department of Medicine from 1932 to 1956, named Distinguished Professor of Medicine in 1959, Emeritus in 1961, first Indiana physician elected—in 1971—Master, highest membership category, of the American College of Physicians, chairman of the Admissions Committee of the School of Medicine from 1940 until his death, he passed judgment fairly and discerningly on the qualifications of thousands of applicants.

His honors were high and many. His life's meaning glows in the words of his colleagues:

"I think the entire medical profession of Indiana recognizes Dr. Ritchey as their foremost physician, honored, respected and revered not only for his skill as a practitioner but for his stature as a man. Thousands of physicians who have been graduated from the I.U. School of Medicine look upon him as their best teacher and the man they would most like to emulate," said Dr. Glenn W. Irwin Jr., vice-president of I.U. for Indianapolis and former dean of the School of Medicine.

He was "a master clinician and a master teacher. He was nationally recognized as a doctor's doctor and became a legend in his own time," said Dr. Steven C. Beering, dean of the I.U. School of Medicine.

His remembrance, influence and inspiration will endure.

Reprinted by permission from *The Indianapolis Star*, Dec. 9, 1981.

CME QUIZ

Duodenal Ulcer

CONTINUED FROM PAGES 33-36

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. Graham advocated management of perforated peptic ulcer by which of the following techniques?
   a. simple closure
   b. simple closure with an omental patch
   c. vagotomy and pyloroplasty
   d. nonoperative management
2. Nonoperative management of perforated peptic ulcer is warranted in which of the following patients?
   a. the usual case of perforated peptic ulcer
   b. acutely ill patients without a prior history of ulceration
   c. acutely ill patients with a prior history of ulceration
   d. moribund patients
3. Options available to the surgeon for the operative management of perforated duodenal ulcer include which of the following:
   a.. simple closure
   b. vagotomy and pyloroplasty
   c. vagotomy and antrectomy
   d. all of the above
4. In a series of patients treated by simple closure of the perforation with an omental patch, DeBakey reported a mortality rate of:
   a. 2%
   b. 8%
   c. 23%
   d. 64%
5. Advocates for the performance of a definitive ulcer procedure at the time of operation for perforated peptic ulcer include support of their position by which of the following arguments?
   a. mortality is due to the age and condition of the patient, not the choice of operation
   b. symptoms prior to perforation identify the need for subsequent surgery
   c. morbidity is low after simple closure
   d. all of the above
6. Simple closure usually with a patch is recommended for:
   a. debilitated patients
   b. patients with a delay in treatment and gross contamination
   c. patients who become hypotensive during the procedure
   d. all of the above
7. Proximal gastric vagotomy has been suggested as the definitive ulcer procedure to be performed in conjunction with simple closure of a perforated peptic ulcer for the following reasons:
   a. it obligates a negligible additional mortality
   b. the likelihood of postgastrectomy syndromes is minimal
   c. it provides reasonable protection against recurrence
   d. all of the above
8. Defining characteristics of significant hemorrhage from a bleeding duodenal ulcer include:
   a. syncope or postural hypotension
   b. a fall in the hematocrit to 25 or less
   c. requirement of three or more units of blood to restore normal vital signs
   d. all of the above
9. Optimal management of the usual patient with massive hemorrhage from a bleeding duodenal ulcer would be:
   a. endoscopic coagulation
   b. angiographic embolization
   c. intraarterial vasopressin
   d. operative ligation of the disrupted artery
10. Pulmonary embolism in patients with bleeding duodenal ulcer:
    a. never occurs
    b. occurs but is not worth considering because heparinization is absolutely contraindicated
    c. occurs in 40% of patients
    d. occurs with sufficient frequency to justify such prophylactic measures as "minidose" heparin or external compression

December CME Quiz Answers

Following are the answers to the CME quiz that appeared in the December 1981 issue of THE JOURNAL: "Reye Syndrome in Indiana," by Joseph H. Clark, M.D., and Joseph F. Fitzgerald, M.D.

1. b	6. d
2. d	7. a
3. b	8. d
4. c	9. b
5. a	10. d

Answer sheet for Quiz: (Duodenal Ulcer . . .)

1. a b c d	6. a b c d
2. a b c d	7. a b c d
3. a b c d	8. a b c d
4. a b c d	9. a b c d
5. a b c d	10. a b c d

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing lable)

Signature

To be eligible for this month's quiz, send your completed, signed application before Feb. 10, 1982 to the address appearing at the top of this page.

FUTURE FILE

Breast Cancer Conference

The 20th National Conference on Breast Cancer, sponsored by the American College of Radiology, will meet from March 15 to 19 in the Hyatt Regency Hotel, New Orleans. The registration fee is $350 (for training residents with letter from training director, $250). Registration is limited to 600.

For other details and for registration, write to Breast Cancer Conference, 6900 Wisconsin Ave., Chevy Chase, Md. 20815.

ASLM Conference in Detroit

"Impaired Health Care Professionals: A Challenge to the Professions" is the subject of a conference sponsored by the American Society of Law & Medicine on Friday, March 5, at the Detroit (Mich.) Plaza Hotel.

Physicians, nurses, hospital administrators, attorneys, social workers and others interested in the problem are invited. The registration fee is $50 for members of sponsoring organizations, $65 for non-members and $30 for students.

Write to American Society of Law & Medicine, 765 Commonwealth Ave., 16th floor, Boston, Mass. 02215, or call (617) 262-4990.

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IMPORTANT — Attach mailing label from your last Journal here.

Seminars in Evansville

"Principles of Cancer Care" will be offered at St. Mary's Medical Center in Evansville Feb. 18 from 1-5 p.m.

The MacKenzie Seminar on "Adolescent Gynecology" will be conducted at the same location March 18 from 1-5 p.m.

For information, contact W. Thomas Spain, M.D., St. Mary's Medical Center, 3700 Washington Ave., Evansville 47750. Tel: (812) 479-4000.

Duke University Postgrad Course

"Current Concepts in Diagnostic Imaging" will be the subject of a postgraduate course conducted April 19-22 by the Duke University Medical Center. The fee is $400 for practitioners and $200 for those in training. Cancellation will be subject to a $50 fee.

For complete information write to Donald R. Kirks, M.D., Box 3834, Duke University Medical Center, Durham, North Carolina 27710.

Milwaukee Postgrad Course

The Medical College of Wisconsin will hold its 15th Annual Postgraduate Course in Gynecological Pathology, Cytogenetics and Endocrinology from June 17 to 23, 1982 at the Pfister Hotel and Tower, Milwaukee. Limited to 150 registrants. The $500 enrollment fee, which includes 68 selected 35mm slides, is non-refundable. CME rating is 42 hours credit with AMA and AAFP.

Write to Richard F. Mattingly, M.D., 8700 W. Wisconsin Ave., Milwaukee 53226.

Computers in Private Practice

"Choosing and Using a Computer System in a Private Medical Practice" will be covered in two 2-day seminars to be conducted by The Chicago Medical School. The Riviera Hotel, Las Vegas, Feb. 5-6, and the Dutch Inn Resort, Orlando, Florida, Feb. 26-27 will be the places and times. The tuition is $295.

The correspondent is Susan Crabtree, Chicago Medical School, One Chapman Road, P.O. Box 366, Burlington, Ill. 60109, phone (312) 683-2066.

Hyperbaric Oxygen Conference

The 7th Annual Conference on the Clinical Application of Hyperbaric Oxygen will be held June 9-11 at the Disneyland Hotel, Anaheim, California. For full info, write to Baromedical Department, Memorial Hospital Medical Center, 2801 Atlantic Ave., Long Beach, Calif. 90801, or phone (213) 595-3613.

Health Care Labor Law

"Health Care Labor Law" will be the subject of seminars to be conducted by the American Society of Law & Medicine on February 19, Fairmont Hotel, Denver; March 15, Shamrock Hilton Hotel, Houston; and April 30, Vista International, 3 World Trade Center, New York City.

The registration fee, which includes a luncheon, conference materials and a copy of *Health Care Labor Law*, is $100 for members of the Society and $120 for non-members.

Write to American Society of Law & Medicine, 765 Commonwealth Ave., 16th Floor, Boston, Mass. 02215, or call (617) 262-4990.

Emergency Care of Children

"Critical and Emergency Care of Children" is the subject of a CME seminar to be conducted by the Methodist Hospital of Indianapolis at the Sheraton West Hotel, Indianapolis, March 10-12. Drs. Russell Raphaely and Judith Bausher will participate as members of the guest faculty.

For full information, write the Division of Academic Affairs of Methodist Hospital, 1604 N. Capitol Ave., Indianapolis 46202 or phone (317) 927-3733.

Polytomography of the Temporal Bone

A two-day symposium on Polytomography of the Temporal Bone will be given under the auspices of the Wright Institute of Otology at Community Hospital, Indianapolis, March 6 and 7.

The symposium meets the criteria for 12 AMA Category 1 credit hours. Fee for the course is $300.

Direct inquiries to the Wright Institute of Otology, Inc., Community Hospital of Indianapolis, 1500 N. Ritter Ave., Indianapolis 46219. Tel: (317) 353-5679.

Cancer Symposium in Texas

"Perspectives on Genes and the Molecular Biology of Cancer" is the topic of the 35th annual symposium on Fundamental Cancer Research to be held at the Shamrock Hilton Hotel, March 2 to 5, 1982. For full information write or phone Stephen C. Stuyck, M. D. Anderson Hospital and Tumor Institute, 6723 Bertner Ave., Houston, Texas 77030, (713) 792-3030.

International Cancer Congress

The 13th International Cancer Congress will meet in Seattle, Washington Sept. 8-15, 1982. For program and registration info write Congress Operations Office, Fourth and Blanchard Bldg., Suite 1800, Seattle, Wash. 98121.

Promotion of Private Practice

The 2nd International Congress of Private and Independent Doctors will be conducted by IATROS on March 5-10, at the Mills House Hotel, Charleston, South Carolina. Theme of the meeting will be "The Promotion of Private Practice."

The address for inquiries is IATROS Congress, 63 Gadsden St., Charleston, S.C. 29401, or phone (803) 722-4214.

Three-Day Michigan Symposium

"Hazardous Materials Emergency Medical Treatment" is the theme of a symposium at Michigan State University in East Lansing, Michigan, Jan. 20-22. Nineteen hours of ACEP Category 1 credit is applied for. EMT, Nurse CEU and Physician credits applied for.

Write to Joan Alam, MSU, 23 Kellogg Center, East Lansing, Mich. 48824 or phone (517) 353-7822.

5-Day Lung Pathology Course

"Lung Pathology" will be the subject of a five-day comprehensive CME program sponsored by the American College of Chest Physicians at the Ramada The O'Hare Inn in Des Plaines, Illinois, March 29 to April 2.

It is accredited for 28 credit hours in Category 1. Tuition for ACCP members is $550, for nonmember physicians $600. For further info write to the College at 911 Busse Highway, Park Ridge, Ill. 60068.



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RONALD G. BLANKENBAKER, M.D.
State Health Commissioner

New information from
Office of the Commissioner
Indiana State Board of Health
1330 W. Michigan St.,
Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

Developing a Comprehensive Health Plan for Indiana

The increasingly complex responsibilities of state government for the health of its citizens have created a need for strong, well-staffed and effective planning. Goals, objectives and priorities must be developed and discussed among health professionals, state officials, and the citizens of Indiana. Our ability to develop risk/benefit and cost/benefit ratios of our actions and recommendations will be critical to the success of plans in the future, especially with our current economic situation.

The public is reacting to its health concerns by becoming more knowledgeable and critical of its health care delivery. Consequently, Hoosiers are demanding comprehensive, cost-effective health care, disease prevention and health promotion. The task of public health workers is to develop and utilize the state's health resources so that maximum benefits will result for the greatest number of people.

This cannot be achieved by the methods that have prevailed in the past. We cannot stumble blindly into the future. Effective programs cannot be developed on the basis of emotions, beliefs, and guesses. Neither can they be achieved by an uncoordinated and individualistic approach. However, facts and data can be collected and evaluated, knowledge and information can be accumulated, and planning for the future can be organized so that the state's responsibility in the field of health is conducted in an effective, coordinated fashion with specific goals and objectives to be achieved.

Because of the importance of good health to the citizens and because of the economic impact of health programs, comprehensive health planning must receive strong support from the health professions and a concerned public, and be pursued in the most acceptable manner possible. The Indiana State Board of Health has been engaged in the development of a comprehensive health plan for the state. For such planning to be effective there must be a procedure that assures input and support from local communities. With such cooperation and support it should be possible to establish, promote, and develop intelligent solutions in the following areas of concern:

- Quality care readily available to protect the health of mothers and children.

- Rehabilitative services for those who because of birth defects, disease, or accidents have mental and/or physical disabilities. We must emphasize wherever possible the prevention of handicapping conditions.

- Counter measures to those threats to the health and well-being of children and youth—such as various communicable diseases, alcoholism, drugs misuse, venereal disease, accidents, suicide and homicide.

- Services for the aging and aged to assure that they may maintain the highest degree of independent living possible during a lifetime.

- Available and accessible health care to all populations necessitates an accurate understanding of current and projected health manpower and health care facility needs with mechanisms in place to assure that decisions made are not counterproductive.

- The preservation, improvement, and maintenance of an environment (air, water, and earth) that permits man to live fully without undue threat to health and life and with the understanding that there must be a proper balance between the physical and economic environment of man. We must replace emotionalism and crisis reaction with facts (realistic standards) and confidence in cause and effect relationships. We must do our utmost in developing new waste management methods and in removing barriers to their application.

- Public education directed toward informing individuals as to their responsibility for maintaining their own health and that of the community in which they reside.

- The proper relationship of the state to local and federal health programs in order that Indiana may participate in fund sharing in a manner most beneficial to the citizens of the state. This includes the administration of federal "Block Grants."

In executing its planning function, the State Board of Health as the State's lead health planning agency shall address its efforts toward the prevention of dependency and the promotion of independent quality living. The cooperation of the medical profession is not only solicited but is absolutely essential if your state health agency is to successfully meet those responsibilities.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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AUXILIARY REPORT

Marianna (Mrs. Glenn W., Jr.) Irwin
President, ISMA Auxiliary

Vivian Priddy
Jane Bannon
Co-Chairmen
Legislative Committee

The Legislative Leadership Workshops were well conceived and expertly conducted by the ISMA staff and legal counsel. The Auxiliary felt honored to be able to attend, contribute and be updated concerning the issues.

We also appreciated the opportunity to be visible to the attending legislators as possible contact persons with the lawmakers. We feel that this is one area where the ISMA and the ISMA Auxiliary can work together toward common goals and purposes. We welcome any and every opportunity to extend help or expertise as well as disseminate information to our membership.



Mrs. Bannon



Mrs. Priddy

It is our hope that in the 1982 short legislative session the three-way communication between the auxilians, ISMA and legislators will continue so that together we might achieve the quality of health care that will be exemplary for other states.

The workshops established a balance between leaders in medicine and leaders in government. Now it's time for us to put our legislative logos to the test and prove that "Involvement Tips the Scales."

Licensing Statute Does Not Apply

A trial court's refusal to enjoin a first-trimester abortion clinic from operating without a license has been upheld by an Indiana appellate court.

The Indiana Hospital Licensing Council sought to apply pre-existing licensing statutes for outpatient surgical clinics to the abortion clinic. The clinic challenged the constitutionality of the proposed application of the statute as unduly burdensome on the abortion decision in violation of equal protection and due process. It also contended that a recent repeal of a statutory provision requiring performance of first-trimester abortions in a hospital or licensed health facility indicated that the legislature did not intend that such clinics be required to obtain licenses.

The clinic was a private corporation that maintained a staff of 14 persons. All personnel required to be licensed by the state were apparently licensed. The state's own witnesses denied the necessity for various pieces of equipment required under the licensing statute and for various space and structural requirements.

The trial court said that application of the state licensing statute would constitute an impermissible degree of state interference before the end of the first trimester. The court noted that repeal of the portion of a state statute requiring abortions to be performed in a licensed health facility made the licensing requirements inapplicable to facilities that performed only first-trimester abortions.

On appeal, the court pointed out that testimony indicated that compliance with the statutory requirements by facilities such as the clinic would be economically unfeasible and would force the clinic to raise its fees substantially or close down. The court recognized the state interest in protecting maternal health but felt that the statute was not narrowly drawn to reflect such interests. The court found that although a state might require licensing of such a clinic, such licensing requirements might be conditioned only on compliance with general regulations regarding maintenance of sanitary facilities, building code standards, and the like, unless the state could show a compelling interest in other regulations.—*Indiana Hospital Licensing Council v. Women's Pavilion of South Bend, Inc.*, 420 N.E.2d 1301 (Ind. Ct. of App., May 28, 1981)

Courtesy of *The Citation*, Nov. 1, 1981.

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INDICATIONS: *Therapeutically* (as an adjunct to systemic therapy when indicated), for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection. *Prophylactically*, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the eyes or in the external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

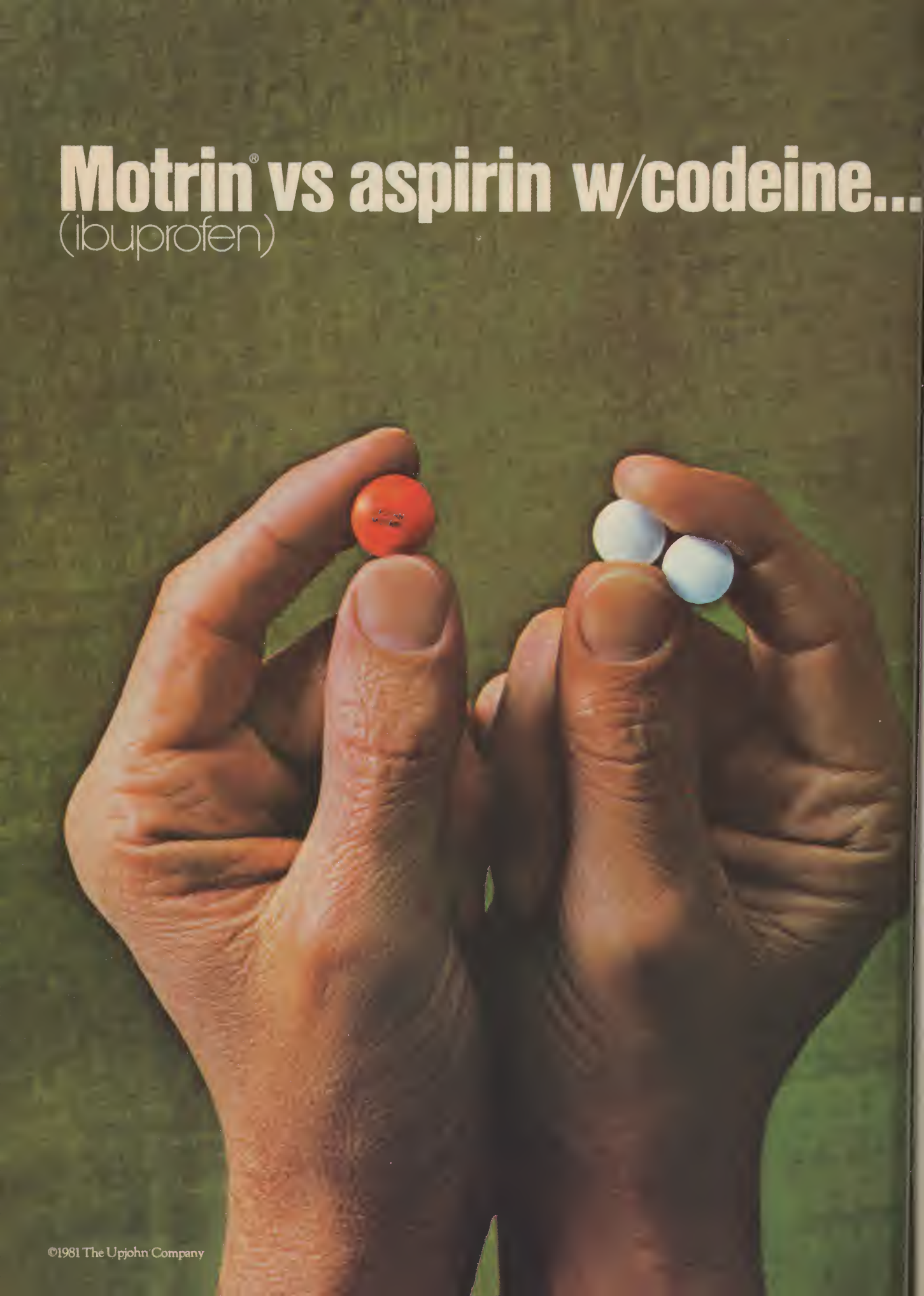
ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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Motrin® vs aspirin w/codeine...
(ibuprofen)

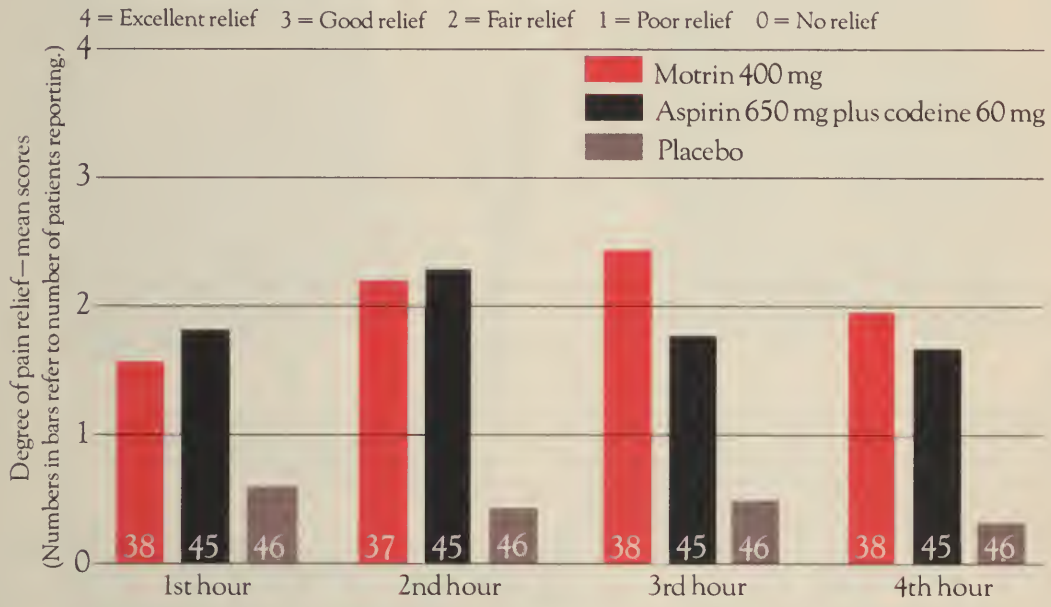


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compare the analgesic effect

A *Motrin* 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients. In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the *Motrin* and aspirin-with-codeine groups... with *Motrin* being significantly more effective ($p = 0.03$) at the three-hour interval. Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief
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Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea;* epigastric pain;* heartburn;* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness;* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d.
Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

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MARCH 1981

It's time the Tooth Fairy started leaving arthritis information.

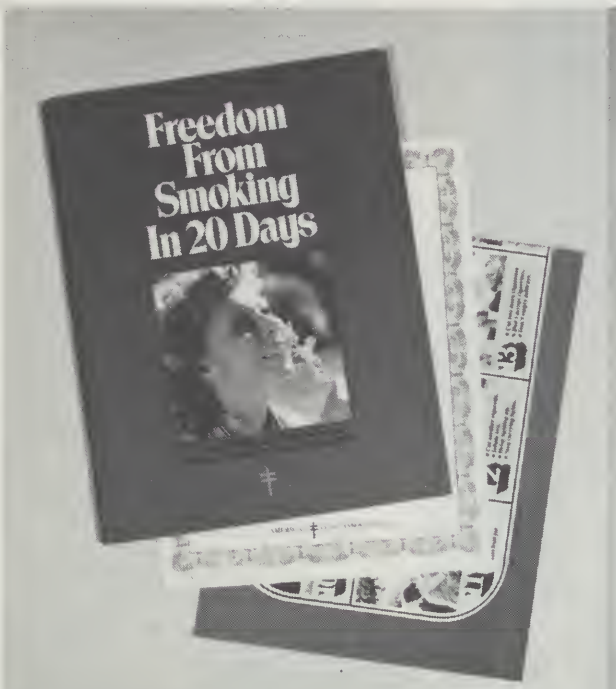
It's a myth that arthritis is just the minor aches and pains of old age. It's a major crippler that attacks. Anybody. Anytime. 31 million Americans have it. There are almost a million new cases a year. And six out of ten are under 60. Symptoms can come and go for years. So if you don't know the warning signals, find out. If you'd like information that could help you—or you'd like to help us—write to the Arthritis Foundation, Box 19000, Atlanta, GA 30326.

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Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Adams, Robert H., Kokomo
Adler, Alan J., Kokomo
Angulo, Edilberto D., Munster
Atkins, Clayton H., Greenwood
Baker, Glenn W., Brownsburg
Balter, Eugene L., Gary
Bentz, John M., Bluffton
Bingle, Glenn J., Indianapolis
Black, M. James, Brownsburg
Blichert, Peter A., Fort Wayne
Bloch, Richard, Lafayette
Boaz, William D., Wabash
Broadie, Thomas A., Indianapolis
Brown, Earl R., Indianapolis
Buehner, Donald F., Evansville
Burt, Robert W., Indianapolis
Burton, Robert L., Gary
Cavins, John A., Indianapolis
Cebedo, Jaime J., Munster
Cline, Donald L., Indianapolis
Cole, Walter A., Jasper
Conroy, Michael D., South Bend
Cook, Thomas L., Evansville
Dian, Donald A., Bluffton
Dittmer, Thomas L., Valparaiso
Drake, James R., Anderson
Eckert, Russell A., Logansport
Ehrlich, Clarence E., Indianapolis
Engel, Howard R., South Bend
Frederick, Terry L., Carmel
Galante, Gloria, Munster
Gerlanc, Milan D., Evansville
Gillum, Eugene M., Portland
Gize, Raymond W., Fort Wayne
Glock, Hugh E., Greencastle
Gootee, Francis H., Jasper
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Grossman, Charles B., Carmel
Gupta, Pratap C., Bristol
Hankin, Lawrence G., Munster
Hendricks, Fred A., Indianapolis
Johnson, John C., Crown Point
Johnson, Victor, Evansville
Jones, Thomas A., Indianapolis
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Kilgore, Byron W., Fort Wayne
Kimbrough, Robert F., Fort Wayne
Kingma, Roy E., Demotte
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Klutinoty, George, Carmel
Kourany, Oscar, Mooresville
Lawrence, James M., Indianapolis
Lessure, Alfred P., Evansville
Marhenke, Jon D., Indianapolis
Matzen, Richard N., Bluffton
McDougal, Robert A., Danville
Medina, Herbert L., Munster
Meier, Donald W., Bluffton
Michael, Isaac E., Indianapolis
Norins, Arthur L., Indianapolis
Noval, Augusto J., Terre Haute
Park, Hee M., Indianapolis
Pillai, Vijayan, Bedford
Poolitsan, George C., Bloomington
Probst, Edward L., Columbus
Raju, M.V.S., Terre Haute
Rea, Ralph L., Greenfield
Records, John M., Franklin
Ridge, Frederick R., Linton
Ritchie, William D., Evansville
Robbins, Gordon T., Zionsville
Robinson, Layne D., Newburgh
Rogers, M. Neil, Bloomington
Schloss, Robert P., Fort Wayne
Searcy, Linda M., Crawfordsville
Serrano, Jose F., Munster
Sinkovic, Gerald M., Indianapolis
Smith, Donald W., South Bend
Sneary, Max E., Avilla
Souder, Mark S., Auburn
South, Terry A., Poseyville
Spicer, Stephen C., Rensselaer
Stearley, John S., Gosport
Stiles, Reginald B., Fort Wayne
Stolz, Thomas J., Otterbein
Stover, Mervin C., Munster
Sugarman, Donald R., Fort Wayne
Surian, Michael A., Bloomington
Templin, David B., Lowell
Terpstra, William G., Noblesville
Thephasdin, J., Crown Point
Tirman, Wallace S., South Bend
Tower, James H., Shelbyville
Umphrey, James E., Bluffton
Weiskopf, Henry S., Merrillville
Winters, Peter L., Indianapolis
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NEWS NOTES

German-Language Edition of *JAMA*

AMA agreements with three publishers in Europe will soon create a German-language edition of *JAMA* for physicians in West Germany, Switzerland and Austria. Flemish and French-language editions are planned for Belgium.

JAMA already is published in Japanese, and in French-language editions in France and Switzerland. The French edition is the most widely read clinical journal in France.

Booklets on DES Exposure

The National Cancer Institute will supply, without charge, copies of three booklets on the sequelae of diethylstilbestrol exposure during pregnancy.

The titles are: 1. Prenatal Diethylstilbestrol Exposure: Recommendations of the Diethylstilbestrol Adenosis Project for Identification and Management of Exposed Individuals. 2. Questions and Answers About DES Exposure. 3. Were You or Your Daughter or Son Born After 1940?

Write to Office of Cancer Communications, Bldg. 31, Room 10-A-21, Dept. SC, 9000 Rockville Pike, Bethesda, Maryland, 20205 or call 800-638-6694.

Driving Funds for Disabled Vets

Veterans suffering from service-connected ankylosis of one or both knees or hips can now be reimbursed by the VA for the purchase of adaptive equipment that will enable them to drive their own automobiles or other vehicles.

Under the recently approved program, the VA will grant up to $4,400 for some seriously disabled veterans to purchase an automobile or other conveyance. It also will pay for special equipment, such as engine and steering controls and wheelchair lifts.

AMA Supports Required Labeling

In recent Congressional testimony, the AMA supported the required labeling of sodium and potassium content of foods.

"Most persons for whom sodium and potassium control is prescribed or advised need more information than is now available to them to control their daily intake of these two substances," the AMA witness said.

The AMA favors expanding legislation before the House to include labeling for meat and poultry products regulated by the Department of Agriculture.

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Child Passenger . . .

CONTINUED FROM PAGE 8

suggestions made by the office of Highway Safety planning in Lansing, Michigan are a follows:

1. Obtain educational materials from sources such as the American Academy of Pediatrics.
2. Consider having an infant or toddler seat on display in your office. (Often these are available from automobile dealers.)
3. Educate your office personnel to restraint importance.
4. Compare restraints with immunizations, and stress the importance of both. (Motor vehicle accident risk is higher!)
5. Write a prescription for a safe car seat for any child who doesn't have one.
6. Encourage community service groups to expand availability of child car seats at low cost by developing rental programs in your communities. (Childbirth Education Classes have often undertaken this as a project.)
7. Conduct an educational program on auto safety for the doctors in your area.

For printed and audio-visual materials contact either the National Highway Traffic Safety Administration in Washington, D.C. or the Office of Highway Safety Planning, Lansing, Michigan 48913.

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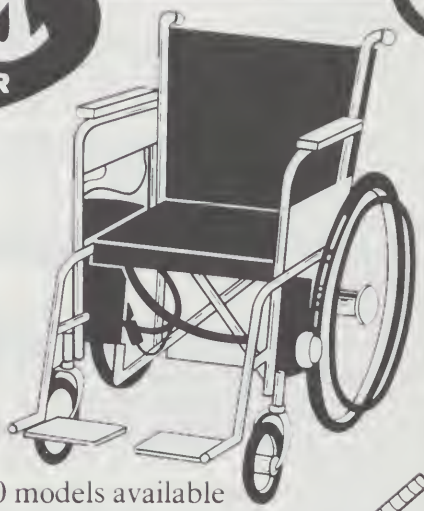
Exercise Equipment





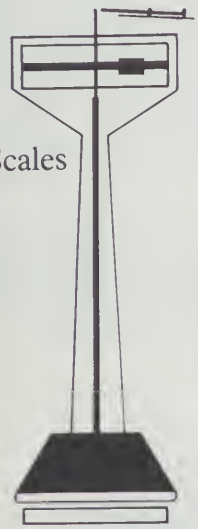
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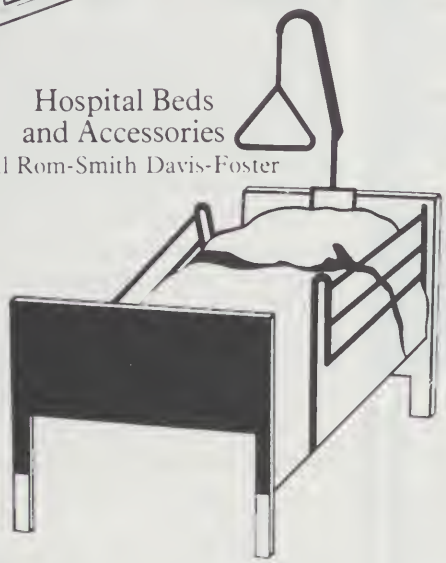


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NEWS NOTES

Indiana Holding Company Capitalized

Physicians Insurance Company of Ohio (PICO) has purchased $2.1 million of the common stock of Indiana Physicians Investment Company, an Indiana insurance holding company.

Indiana Physicians Investment was organized by the Indiana State Medical Association, specifically to form a life insurance company to serve Indiana physicians.

The PICO stock purchase provided initial capitalization of Indiana Physicians Investment, which has formed a subsidiary, Indiana Physicians Life Insurance Company. Indiana Physicians Life is commencing business by marketing group term life insurance to members of the ISMA.

Under a registration statement declared effective by the Securities and Exchange Commission on Sept. 28, 1981, the sale of IPIC's $4.5 million in Class A common stock of Indiana Physicians Investment will be directed to ISMA physician members and their families. The price per share is $20 and the offering is being conducted through the prospectus only, by a sales agent, First Securities Corporation.

Indiana Physicians Investment and Indiana Physicians Life are located in Indianapolis. Chairman of the Board is Arvine G. Popplewell, M.D., and assistant vice-president is Harold M. Wilson.



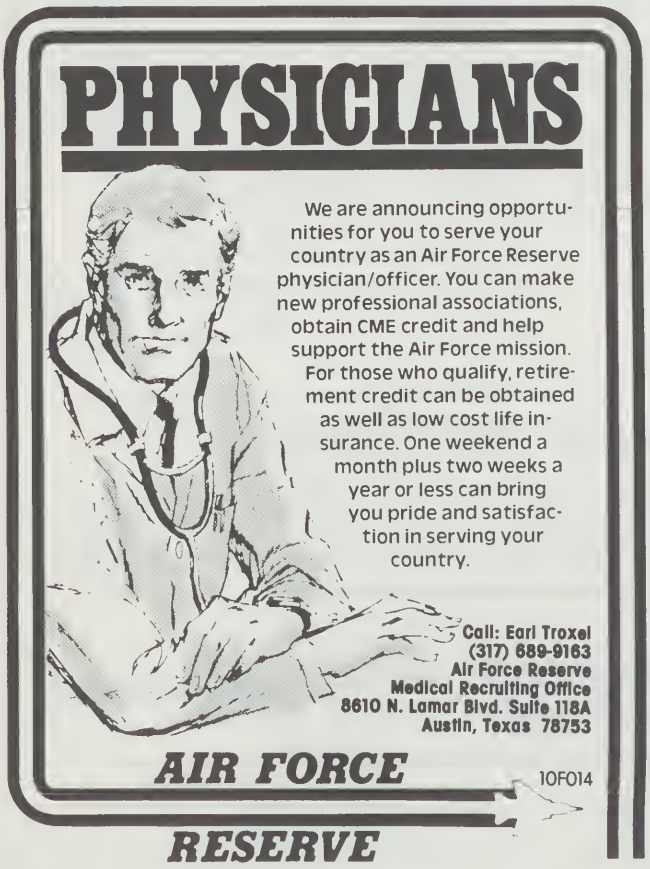
Arvine G. Popplewell, M.D., chairman of the Board of the newly formed Indiana Physicians Life Insurance Company, receives a "check" for $2.1 million from William M. Wells, M.D., chairman of the Board of Physicians Insurance Company of Ohio. The transaction was made to effect the capitalization of Indiana Physicians Investment Company, the holding company which has formed IPLIC.

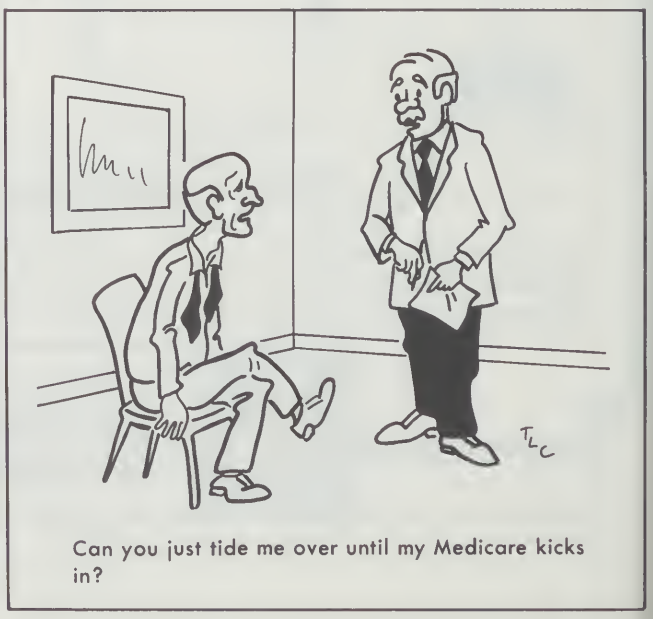
Funding for Jail Health Program

The AMA Jail Medical Care Improvement Program has received an assist from the Robert Wood Johnson Foundation in the form of a grant of $398,258, which will provide funding until October 1983. This is less than previous funding but will maintain a central office to work with state medical societies.

The AMA will no longer be able to send experts for on-site technical assistance but will provide telephone assistance when requested.

The AMA reports that seven state medical associations have secured funding to continue their projects on a full-time basis and 10 more plan to continue part-time, making on-site assistance available in some areas.





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Instructional TV Catalog

The Agency for Instructional Television's main office in Bloomington, Indiana has a new "1982 AIT Catalog of Educational Materials," which may be obtained at no cost by writing AIT Care of Box A, Bloomington, 47402.

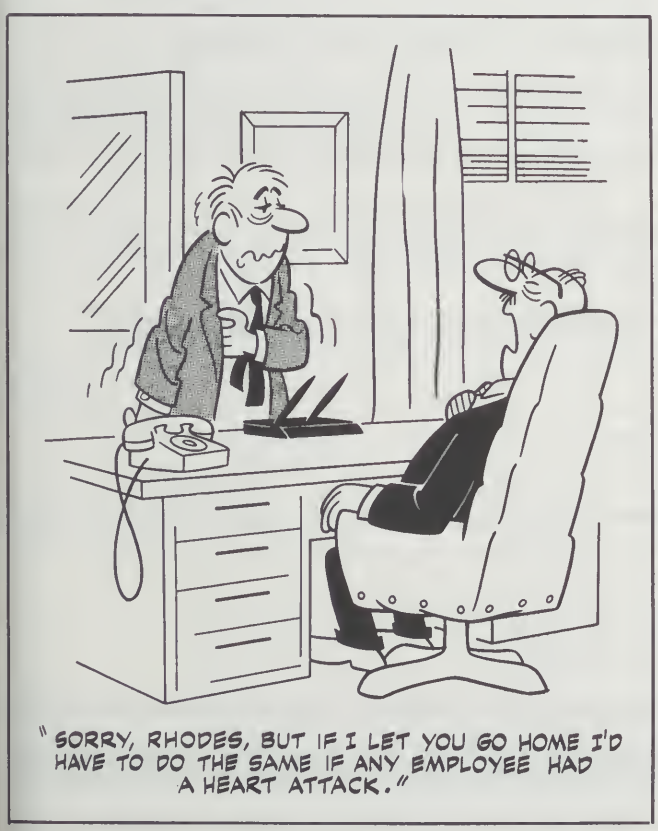
The 140-page illustrated catalog includes program summaries for more than 2,000 individual programs in some 110 series available for the 1982-83 school year. Almost all series are provided on videocassette and many are available on film. Twenty series are in VideoKit® format with a teacher's guide and up to eight long-playing cassettes with as many as 32 programs.

The new series include three in mathematics, two in language arts, two in social studies, four in science, and one each in health and safety, music and child care.

Home-Diagnosis Products Popular

Sales of medical products for home use have tripled since 1975, according to *Medical Economics*. A New York research firm reports that such sales amounted to $155 million in 1980, three times the 1975 figures.

Blood pressure kits are the best sellers, and kits to diagnose pregnancy and diabetes are runners-up. The total home-diagnosis market is expected to top $400 million by 1985.



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NEWS NOTES

Here and There . . .

. . . *Dr. Herbert A. Schiller*, a South Bend obstetrician and gynecologist, was honored at the South Bend-Israel Dinner of State at Sinai Synagogue in November. He has been active in the sale of Israel Bonds and in United Jewish Appeal drives.

. . . *Dr. John W. Woner* of Linton, a 1933 graduate of Indiana University School of Medicine, has retired after 48 years as a practicing physician in Sullivan and Greene Counties.

. . . *Dr. William A. Clunie* of Huntington has been named a diplomate of the American Board of Ophthalmology.

. . . *Dr. Gary D. Bartell*, medical director of the Cummins Mental Health Center at Danville, was the guest speaker at the 1981 annual meeting of the Hendricks County Mental Health Association.

. . . *Dr. Steven C. Beering*, dean of the Indiana University School of Medicine, has been named chairman-elect of the assembly of the Association of American Medical Colleges.

. . . *Dr. Jay A. Brown* of Evansville has been named a diplomate of the American Board of Family Practice.

. . . *Dr. John C. Scanlon* presented a program about arthritis at Lafayette Home Hospital in November.

. . . *Dr. Mark I. Singer* of Indianapolis discussed "Further Experience with Voice Restoration after Total Laryngectomy" during the recent Clinical Congress of the American College of Surgeons. He and *Eric D. Blom, Ph.D.*, developed the technique.

. . . *Dr. Ronald C. Hamaker* of Indianapolis presented "Superficial Lobe Cancer" during a postgraduate course on Tumors of the Parotid Gland, which was a part of the recent Clinical Congress of the American College of Surgeons held in San Francisco.

. . . *Dr. Juley T. Dy* of Portage has been named a Fellow of the International College of Surgeons.

. . . *Dr. Freddie P. Dial* of Cedar Lake discussed "Health Care on Sick Days for the Diabetic" at a November meeting of the Lake County Chapter, American Diabetes Association.

. . . *Dr. Frederick J. Ferlic* of South Bend discussed "When an Arthritic is Ready for Surgery" at a November meeting of the South Bend Living with Arthritis Club.

. . . *Dr. Larry D. Lovall* of Danville has been named a Fellow of the American Academy of Family Physicians.

. . . *Dr. Ronald C. Hamaker* of Indianapolis presented "Mandibular Reconstruction with Irradiated Autografts" during the Fall Scientific Meeting of the American Academy of Facial Plastic and Reconstructive Surgery in New Orleans.

. . . *Dr. Aldo C. Sirugo* has become president of LaPorte Hospital, succeeding *Dr. Charles F. Hagenow. Dr. Adolph Weinstock* was elected vice-president, and *Dr. Chester F. McClure*, secretary-treasurer.

. . . *Dr. William D. Province II* has joined his father's medical practice in Franklin, becoming the fourth Province to practice in Johnson County in an unbroken string dating to 1867.

. . . *Dr. Lester D. Bibler* of Indianapolis has been appointed as a general member of the National Rehabilitation Advisory Board of the American Legion.

Proposed ISMA Constitution Amendment

The following proposed amendment to the Constitution of the Indiana State Medical Association is published in order to meet the requirements set forth in Article X (Amendments) of the Constitution:

"Article VI—Officers: The general officers of the Association shall be a president, president-elect, immediate past president, treasurer, assistant treasurer, speaker, vice-speaker, trustees, and the *executive director.*"

(Article X of the ISMA Constitution states, "The House of Delegates may amend this Constitution at any convention provided the proposed amendment shall have been . . . published twice during the year in THE JOURNAL of the Association.")

Medical School Costs Rising

The average tuition for state residents at public medical schools is now $2,267, up 13% over 1980, according to the Association of American Medical Colleges.

Non-residents attending the same schools pay $4,941, an increase of 16%. Private medical school tuitions are now $9,108, up 15%.

AAFP Honors 25-Year Members

The American Academy of Family Physicians has honored the following ISMA physicians for having maintained AAFP membership for 25 years:

Dr. Henry W. Conrad, Lawrenceburg
Dr. Raymond J. Doherty, Merrillville
Dr. Louis G. Frith, South Bend
Dr. Thomas G. Hamilton, Columbia City
Dr. O. Fred Harless, Monroeville
Dr. C. Jules Heritier, Columbia City
Dr. Robert W. Kuhn, Wilkinson
Dr. Marvin L. McClain, Scottsburg
Dr. James C. Miller, Greensburg
Dr. Michael O. Monar, Rockport
Dr. F. Dale Nelson, South Bend
Dr. Perry F. Seal, Brookville
Dr. George W. Wagoner, Delphi

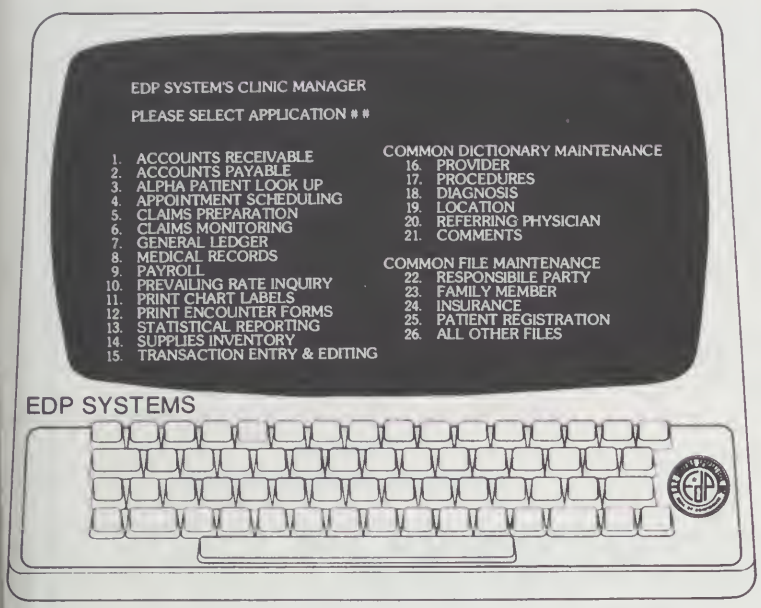
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A foundation for charitable, educational, and scientific purposes, organized by the ISMA as an endowment fund to support the educational mission of the Association and THE JOURNAL.

Bequests, legacies, devises, transfers or gifts to the Foundation or for its use are deductible for federal estate and gift tax purposes, in accordance with the Internal Revenue Code.

The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

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OBITUARIES

James O. Ritchey, M.D.

Dr. Ritchey, 90, chairman of the Indiana University School of Medicine admissions committee since 1940, died Dec. 4 in Methodist Hospital, Indianapolis.

He received the M.D. degree from Indiana University School of Medicine in 1918, and master's cum laude in 1921. He won the first Marcus Ravdin Medal, the school's highest award for scholarship. He was named chairman of the I.U. Department of Medicine in 1932, a post he held until 1956.

Dr. Ritchey, in whose name a distinguished faculty chair has been established, entered private practice in internal medicine in Indianapolis and began part-time teaching duties at the I.U. School of Medicine. In 1959, university trustees granted him the title Distinguished Professor of Medicine. He was named a Distinguished Professor Emeritus of Medicine in 1961. Ten years later he became the first Hoosier physician to be elected a Master of the American College of Physicians.

Dr. Ritchey received I.U.'s Distinguished Alumni Award in 1964 and was enrolled in ISMA's Fifty Year Club in 1968. His professional affiliations included the American College of Chest Physicians, American Society of Internal Medicine and the American Diabetes Association.

Memorials

Indiana Medical Foundation

The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

Contributions made to the Foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for Federal estate and gift tax purposes.

The Foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

Hwei-Ya Chang Loh, M.D.
John Riley
Robert M. Hollowell
John Twyman
Albert M. Donato, M.D.
James Blackmore
Goethe Link, M.D.
Mrs. Beth Bowen
James O. Ritchey, M.D.
Thomas A. Hanna, M.D.

Thomas A. Hanna, M.D.

Dr. Hanna, 72, medical director of the Indianapolis Motor Speedway and a member of the Speedway medical staff for 50 years, died Nov. 12 in Houston, Texas, where he had been visiting his daughter.

He was a 1933 graduate of Indiana University School of Medicine. He became medical director of the Speedway in 1959 and subsequently was named a charter member of the U.S. Auto Club and was enrolled in the Speedway Hall of Fame.

Dr. Hanna was instrumental in the planning and construction of a new infield hospital at the Speedway and in spearheading a drive to include cardiac monitoring equipment and intensive care units at track facilities. Today, the "500" medical operation is recognized as one of the best ever organized for a sporting event.

Richard L. Shriner, M.D.

Dr. Shriner, 58, a South Bend psychiatrist, died Nov. 8 at his home.

He was a 1948 graduate of the University of Chicago Pritzker School of Medicine and had practiced in South Bend since 1955. He was a Navy veteran of World War II.

Dr. Shriner was a member of the Governor's Commission for Mental Health in Indiana and he was a member of the American Psychiatric Association.

Robert E. Arendell, M.D.

Dr. Arendell, 53, a retired Evansville physician, died Nov. 17 at Deaconess Hospital, Evansville.

He was a 1952 graduate of Indiana University School of Medicine. He retired in 1978 because of ill health.

Dr. Arendell served in the Army after receiving his M.D. degree. He began practicing in Evansville in 1955. During the 1960s he served as county coroner. He was certified by the American Board of Family Practice and was a member of the American Academy of Family Physicians.

Harvey W. Sigmond, M.D.

Dr. Sigmond, 72, an Indianapolis orthopedic surgeon, died Dec. 1 at St. Vincent Hospital, Indianapolis.

He was a 1936 graduate of Northwestern University Medical School, Chicago. He was a clinical professor of orthopedic surgery at Indiana University School of Medicine for 40 years.

Dr. Sigmond's professional affiliations included the Clinical Orthopaedic Society, the American Academy of Orthopaedic Surgeons, and the American College of Surgeons. He was a Fellow of the International College of Surgeons.

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BOARD CERTIFIED INTERNIST, practicing two years, desires relocation in Indiana. Seeks sole, group, partnership or buy established practice. Available July 1982. C. S. Kadakia, M.D., Covered Bridge Terr. #D-2, Philippi, W. Va. 26416.

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WHAT'S NEW?

CONTINUED FROM PAGE 2

AMKO has a new angled ataumatic cervical tenaculum especially designed to grasp the cervix without perforation of the tissue. The instrument is curved to provide an unobstructed view of the cervical os for performance of intrauterine procedures.

UPJOHN has received FDA approval for marketing of Xanax tablets for the treatment of clinical anxiety and anxiety associated with depression. During clinical research on the new drug daily doses were from 0.5 mg to 3.0 mg. Xanax is available as 0.25 mg., 0.5 mg., and 1 mg. tablets. It is classified as a Schedule IV controlled substance.

SCHERING announces the introduction of "Paxipam" (halazepam), a minor tranquilizer for the treatment of anxiety disorders. Dosage should be individualized for maximum beneficial effect. The usual recommended dose in adults is 40 mg. three to four times a day. The dose should be adjusted according to the patient's response.

SEARLE and **KNOLL A.G.** of West Germany announce that Searle of Canada and Searle in the Philippines have signed an agreement with Knoll to market the drug verapamil in Canada and the Philippines. The intravenous form of verapamil is marketed by Searle in the United States under the brand name Calan™ and by Knoll under the trademark Isoptin®.

THE 3M COMPANY is issuing a free booklet which describes details concerning the 3M Steri-Vac line of sterilization equipment. Their Ethylene Oxide Sterilization Systems do not require bulky gas tanks. Instead, they operate on small, disposable, single-use cartridges of 100% ethylene oxide gas. For a free copy of the booklet, write 3M, Dept. ME81-23, P.O. Box 33600, St. Paul, Minn. 55133.

MATTHEW BENDER announces publication of the newly-revised second edition of *Doctor's Tax Manual.* It is a step-by-step instructional book of year-round tax guidance especially for the medical profession. Contains a special section on audit triggers. Also discusses various formats for medical practice—solo, partnership, professional and Subchapter S Corporation, with advantages and disadvantages, and comparison of retirement benefits. $25.

THE AMERICAN ACADEMY OF PEDIATRICS announces the availability of the third edition of *School Health: A Guide for Health Professionals.* It also contains information of value to teachers, administrators and other school personnel who help implement school health programs. The new manual is completely revised and updated.

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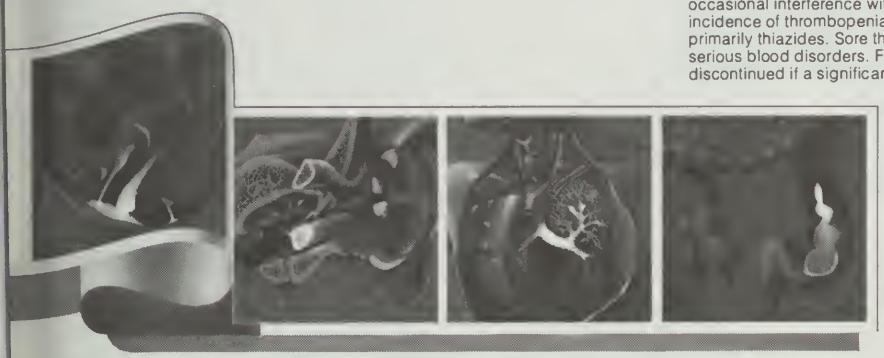
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Bactrim™
(trimethoprim and sulfamethoxazole)
succeeds

Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

Expanding its usefulness in antimicrobial therapy



in recurrent UTI...
a continuing record of high clinical effectiveness against common uropathogens

in acute otitis media in children...
effective against both major otic pathogens...with *b.i.d.* convenience

in acute exacerbations of chronic bronchitis in adults...
clears the sputum and lowers its volume...on *b.i.d.* dosage

in shigellosis...
faster relief of diarrhea than with ampicillin[2]

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

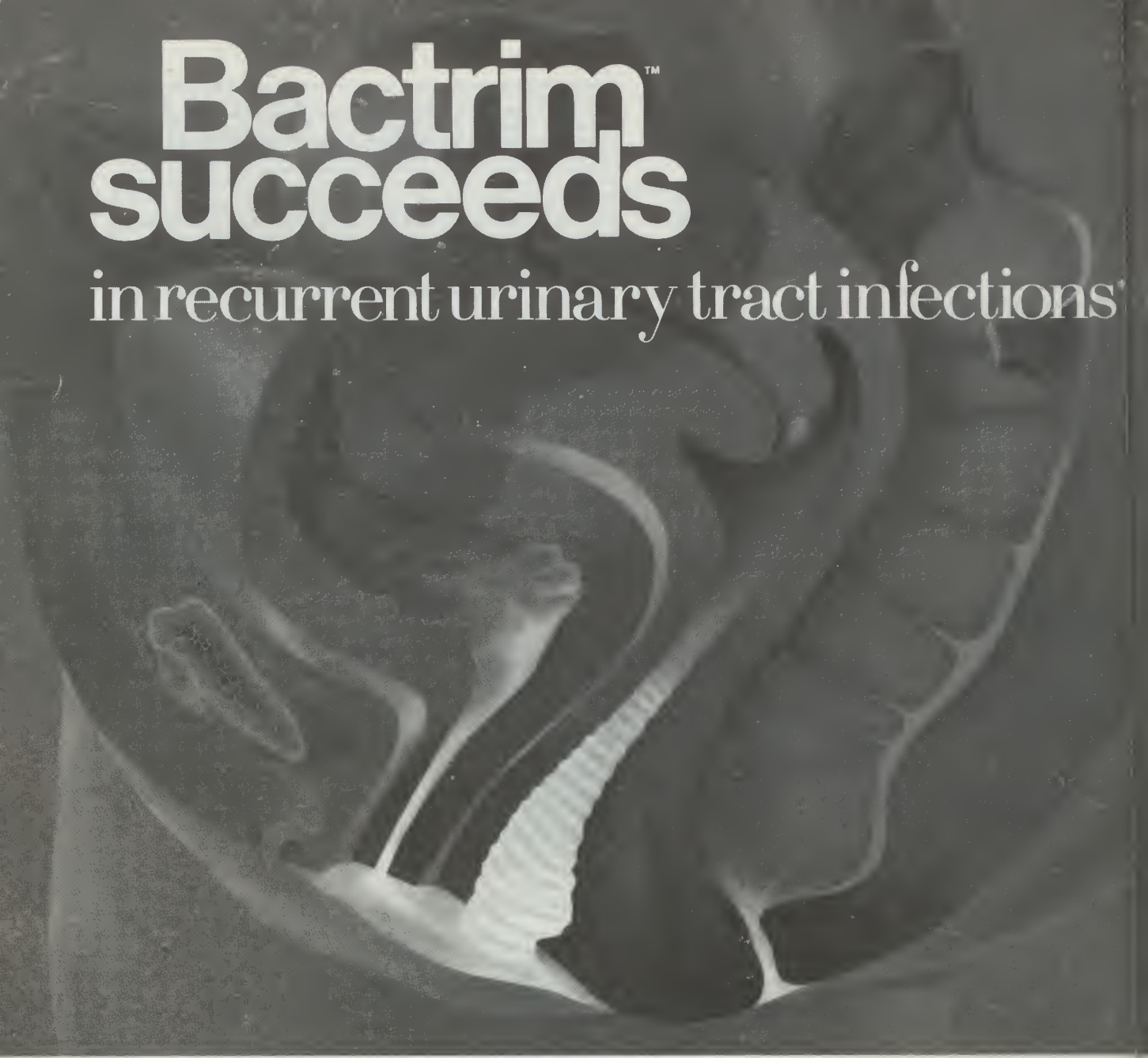
Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Bactrim™ succeeds

in recurrent urinary tract infections*



from site to source

Bactrim continues to demonstrate high clinical effectiveness in recurrent urinary tract infections. Bactrim reaches effective levels in urine, serum, and renal tissue[1]...the trimethoprim component diffuses into vaginal secretions in bactericidal concentrations[1]... and in the fecal flora, Bactrim effectively suppresses Enterobacteriaceae[1,2] with little resulting emergence of resistant organisms.

1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

Bactrim™ DS
160 mg trimethoprim and 800 mg sulfamethoxazole
DOUBLE STRENGTH TABLETS

maximizes results with B.I.D. convenience

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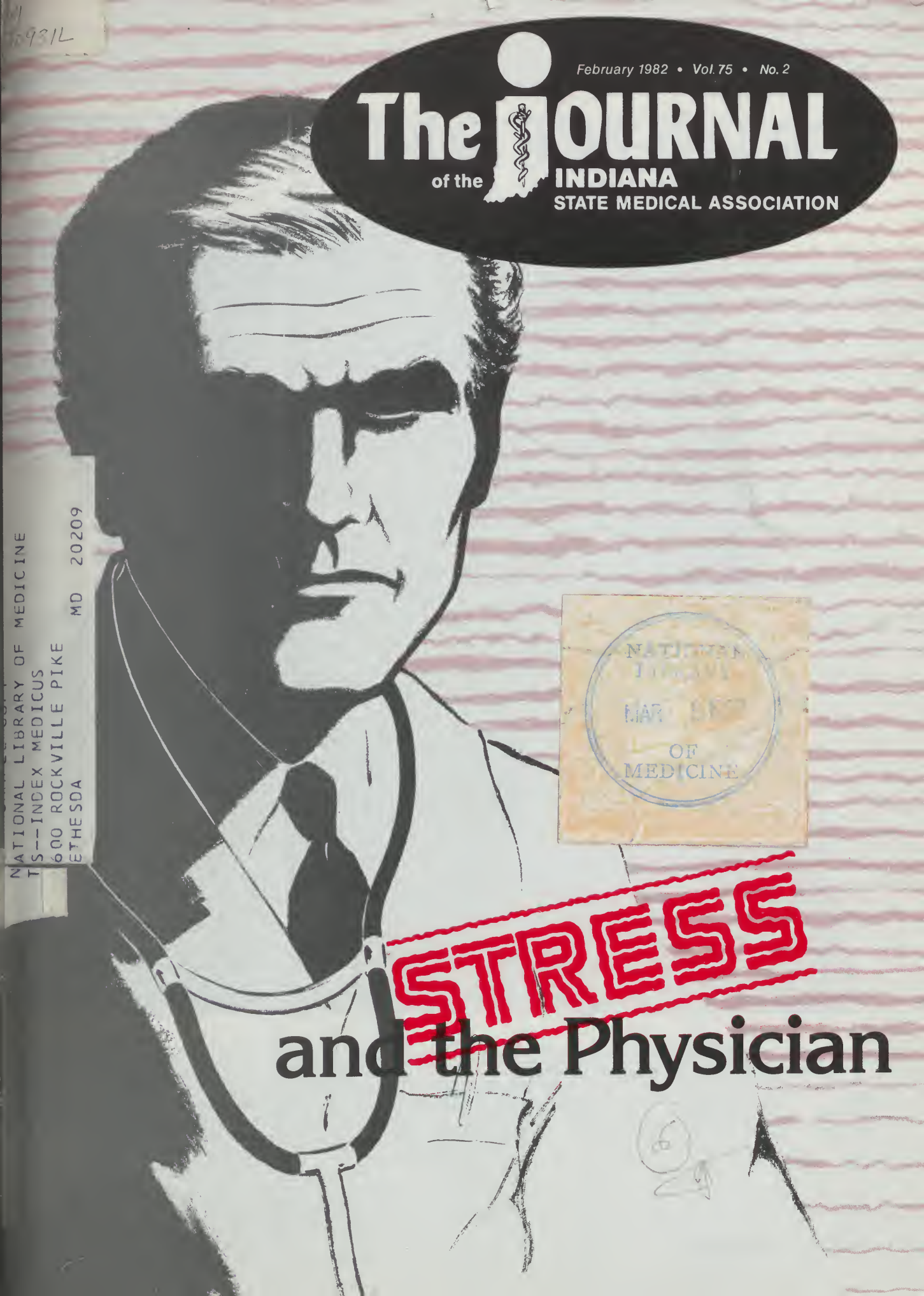
*due to susceptible strains of indicated organisms

Please see previous page for summary of product information.

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The JOURNAL of the INDIANA STATE MEDICAL ASSOCIATION

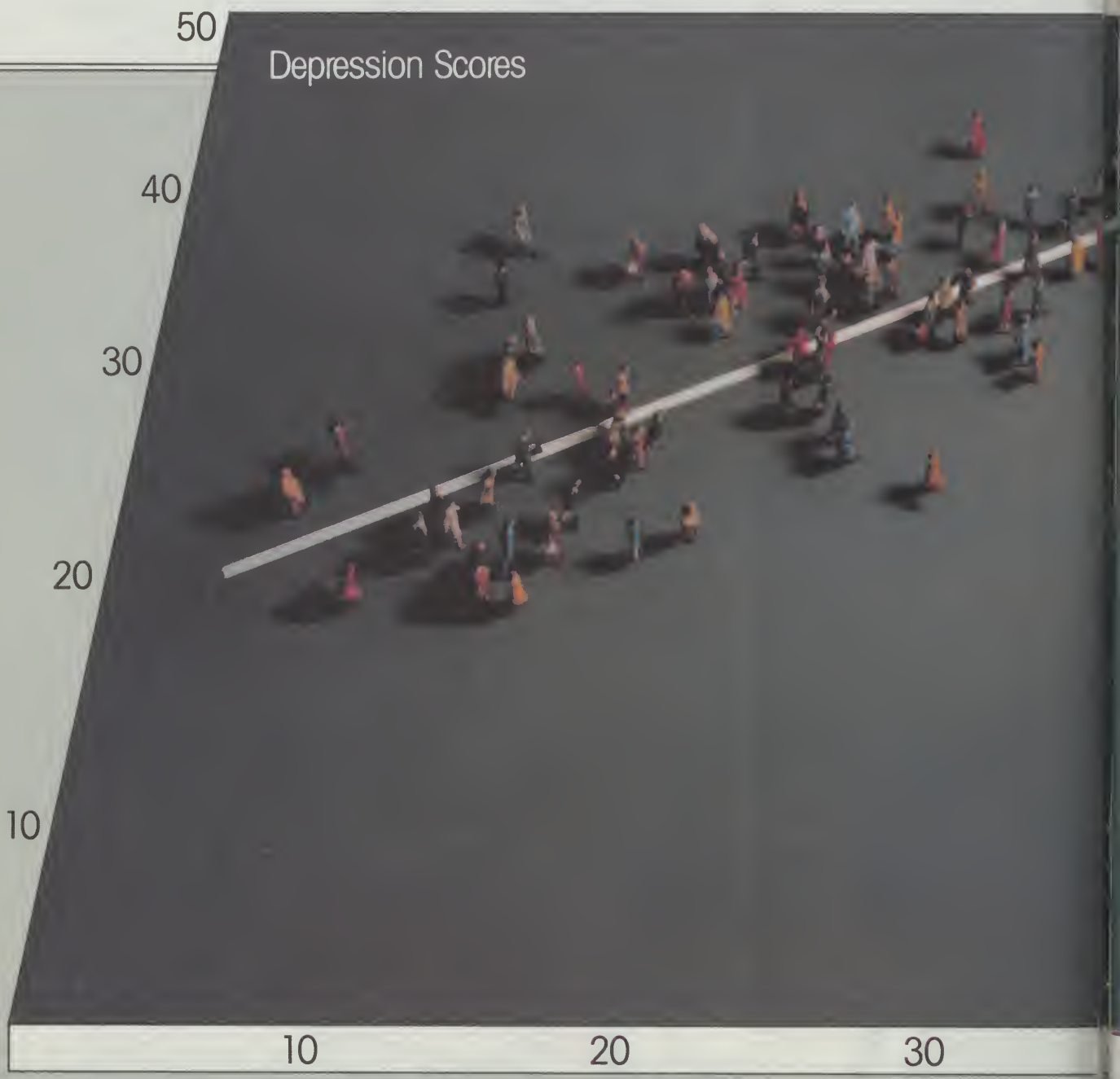


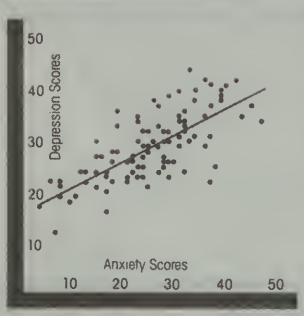
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FOR THE 7 OF 10 NONPSYCHOTIC





Clear correlation between anxiety and depression[3]

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

[3]Adapted from Clagharn, J. The anxiety-depression syndrome. *Psychosomatics 11*:438-441, Sept-Oct 1970.

ROCHE

DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS[1,2]

Most depressed patients are also anxious...

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.[1,2] One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.[3] As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.[4] Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.[5] Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine,* ed. Jarvik ME. New York, Appleton-Century-Crafts, 1977, p. 316. **2.** Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry 35:*1359-1365, 1978. **3.** Claghorn J: The anxiety-depression syndrome. *Psychosomatics 11:*438-441, 1970. **4.** The Task Force on Late Neuralgical Effects of Antipsychatic Drugs: Tardive dyskinesia, summary of a task farce repart af the American Psychiatric Association. *Am J Psychiatry 137:*1163-1172, 1980. **5.** Feighner JP *et al*: A placebo-cantrolled multicenter trial af Limbitrol versus its components (amitriptyline and chlardiazepoxide) in the symptomatic treatment af depressive illness. *Psychopharmacology 61:*217-225, 1979.

Anxiety Scores

50

In moderate depression and anxiety

Limbitrol® IV

Tablets 5-12.5 each cantaining 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochlaride salt)

Tablets 10-25 each cantaining 10 mg chlardiazepaxide and 25 mg amitriptyline (as the hydrachlaride salt)

Relief without a phenothiazine

Please see summary of product information on next page.

LIMBITROL® TABLETS Tranquilizer–Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated: sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12.
In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.
How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.

ROCHE®
ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

WHAT'S NEW?

UPJOHN announces the licensing by the Bureau of Biologics of the FDA of a T-1 lymphocyte-selective immunosuppressive drug which has demonstrated ability to lower rejection rates in renal transplantations. The new drug is ATGAM Sterile Solution. In clinical trials it has increased the one-year survival rate for kidneys transplanted into patients by as much as 27%. Its generic name is Lymphocyte Immune Globulin, Anti-Thymocyte Globulin (Equine).

ELI LILLY has FDA approval for marketing Moxam™ (moxalactam disodium), a newly discovered antibiotic which has exhibited a high level of activity against a broad spectrum of pathogens and good penetration into remote sites of infection. It is neither a penicillin nor a cephalosporin and represents the first of a new class of antibiotics. It is active against strains of Pseudomonas, Serratia and Enterobacter species. It has enhanced resistance against beta-lactamase, the drug-destroying enzyme.

MERRELL DOW PHARMACEUTICALS will soon market Susadrin™ Transmucosal Tablets, a new form of nitroglycerin for the treatment of angina pectoris. Susadrin is placed under the upper lip where it remains comfortably in place releasing nitroglycerin at a controlled rate starting in about 3 minutes and lasting up to 5 hours. Several dose strengths will be available on prescription.

KEY PHARMACEUTICALS has FDA approval to market Nitro-Dur, a 24-hour transdermal sustained-action nitroglycerin, indicated for the prevention and treatment of angina pectoris. It is applied once a day to the chest or upper arm. It transmits the drug at a constant rate throughout the 24 hours.

MERCK SHARP & DOHME will be marketing BLOCADREN (timolol maleate). It is the first drug in the U.S. to receive FDA aproval for use in long-term therapy to reduce the risk of death due to recurrent heart attacks. It is a beta blocker. Clinical research has shown a reduction of overall mortality rate after myocardial infarction of 39.4%; a reduction in incidence of death within 24 hours of symptoms of 44.6%; and a reduction of reinfarction rate of 28.4%. It has been and is now marketed in 90 countries throughout the world for treatment of hypertension.

WARNER-LAMBERT has received FDA approval for marketing Lopid (gemfibrozil), a unique lipid-regulating agent. Lopid, which has been under development for 11 years, reduces low-density lipids (the bad guys) and raises the level of high-density lipids (the good guys). The most common adverse reactions to the drug are nausea, vomiting and abdominal pain in a small percentage of patients.

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WINNER
Sandoz Medical Journalism Award—1976, 1979

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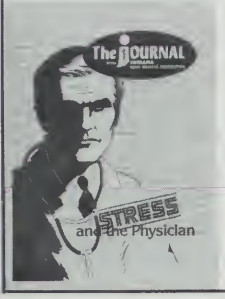
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ABOUT THE COVER

An artist's concept of "Stress and the Physician" serves to introduce an in-depth study of the stresses that increase the chances of becoming an impaired physician. The article, by Nancy C. A. Roeske, M.D., a psychiatrist, begins on Page 108.

—COVER BY FRED KINGHORN

MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

THE LATE Dr. William M. Loehr, professor of radiology at Indiana University School of Medicine, and founder of the school's John Shaw Billings History of Medicine Society, presented a program to this group on May 11, 1967, entitled "Wilhelm Conrad Roentgen and His Indianapolis Relatives." Following are excerpts from his talk:

"Wilhelm Conrad Roentgen was born March 27, 1845, in Lennep, Germany, a village . . . situated between Dusseldorf and Cologne. . . . [At] the age of 23 [he received] a diploma as a mechanical engineer. . . . One year later he received from the University of Zurich the Doctorate of Philosophy after having submitted his thesis entitled 'Studies on Gases.' This was just a little more than a quarter of a century before he was awarded the honorary degree of Doctor of Medicine in recognition of his discovery of the x-ray. . . .

"The great moment that made Roentgen immortal came in the autumn of 1895 working in the laboratory of his Physics Department at the University of Wurzburg in Bavaria. He was working on cathode rays and repeating some of the experiments of Lenard and Crookes. He was particularly interested in the luminescence these rays set up in certain chemicals.

"In order to observe the faint luminescence, he darkened the room and enclosed the cathode ray tube in thin black cardboard. Late in November 1895, he set the enclosed cathode ray tube in action and a flash of light that did not come from the tube caught his eye. He looked up and at quite a distance from the tube he noted that a sheet of paper coated with barium platinocyanide was glowing. It was one of the luminous substances, but it was glowing now even though the cathode rays blocked off by cardboard could not possibly be reaching it.



Grauel



Roentgen

Roentgen Relatives in Indiana

"He turned off the tube; the coated paper darkened. He turned the tube on again; the crystals glowed. He walked into the next room with the coated paper, closed the door, and pulled down the blinds. The paper continued to glow while the tube was in operation.

"It seemed to Roentgen that some sort of radiation was emerging from the cathode ray tube, a radiation that was highly penetrating, yet invisible to the eye. By experiment he found that his radiation could pass through considerable thicknesses of paper and even through thin layers of metal. The imposition of the hand of Frau Roentgen between the Hittorf-Crookes tube and a photographic plate revealed the outline and details of the bones.

"Since he had no idea of the nature of the radiation, he called it x-rays, X being the usual mathematical symbol for the unknown. For seven weeks he experimented furiously and then, finally, on December 28, 1895, submitted his first paper in which he not only announced the discovery but reported all the fundamental properties of x-rays. On New Year's Day, 1896, Roentgen sent reprints of his paper, entitled 'On a New Kind of Ray,' to many of his colleagues. A few days later newspapers announced the discovery over the world even before the discoverer himself spoke on it before the Wurzburg Physical-Medical Society."

Dr. Loehr concluded his talk by telling of the Roentgen relatives in Indiana.

"Wilhelm Conrad Roentgen was an only son and he had no children. In the year 1887 they took Josephine Bertha Ludwig, the six-year-old daughter of Mrs. Roentgen's only brother, into their home. She had been born December 21, 1881, at Zurich and they regarded her as their own child and legally adopted her during her 21st year.

"Except for his close family, his dearest relative was a first cousin, the daughter of his father's brother, Ferdinand Roentgen. This cousin, Louisa Roentgen, was about the same age as Roentgen—some three years younger. She was his childhood playmate and was a bridesmaid at his wedding. They were more like brother and sister than cousins. In the early 1870's, Louisa Roentgen, with her father Ferdinand, came to the United States as a single girl. In not too long a time, she married a young minister of the Dutch Reformed Church by the name of Reverend Julius H. T. Grauel. From 1884 to 1907, the Reverend Julius Grauel, Sr. was pastor of the Butler Reformed Church at 10th and Oakland Streets in Indianapolis."

Mrs. Louisa Roentgen Grauel, age 81, died in 1929. She was survived by three sons and four daughters.

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	Fenfluramine	Secondary	10-30 hrs.	20 mg tablet	Moderate sedation (mild to moderate depression, a side effect, is also sometimes designated as a CNS effect)
	Phentermine	Primary	19-24 hrs	8 & 37.5 mg tablet, 8, 15 & 30 mg capsule 15 & 30 mg capsule (resin complex) 15 & 30 mg timed release capsule	Mild euphoria, moderate stimulation
High Abuse Potential	**Phenmetrazine**	Secondary	7-9 hrs.	25 mg tablet, 50 & 75 mg prolonged action tablet	Marked euphoria, marked stimulation
	Amphetamine	Primary	10-30 hrs.	Various	Marked euphoria, marked stimulation

[a]Delayed release characteristics of certain dosage forms must also be taken into account.

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Brief Summary

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CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors. (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect: rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personalty changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

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Product Information as of June, 1980

Reference: 1. Abramson R, Garg M, Cioffari A, and Rotman PA; An Evaluation of Behavioral Techniques Reinforced with an Anorectic Drug in a Double-Blind Weight Loss Study. J Clin Psych 41:234-237, 1980.

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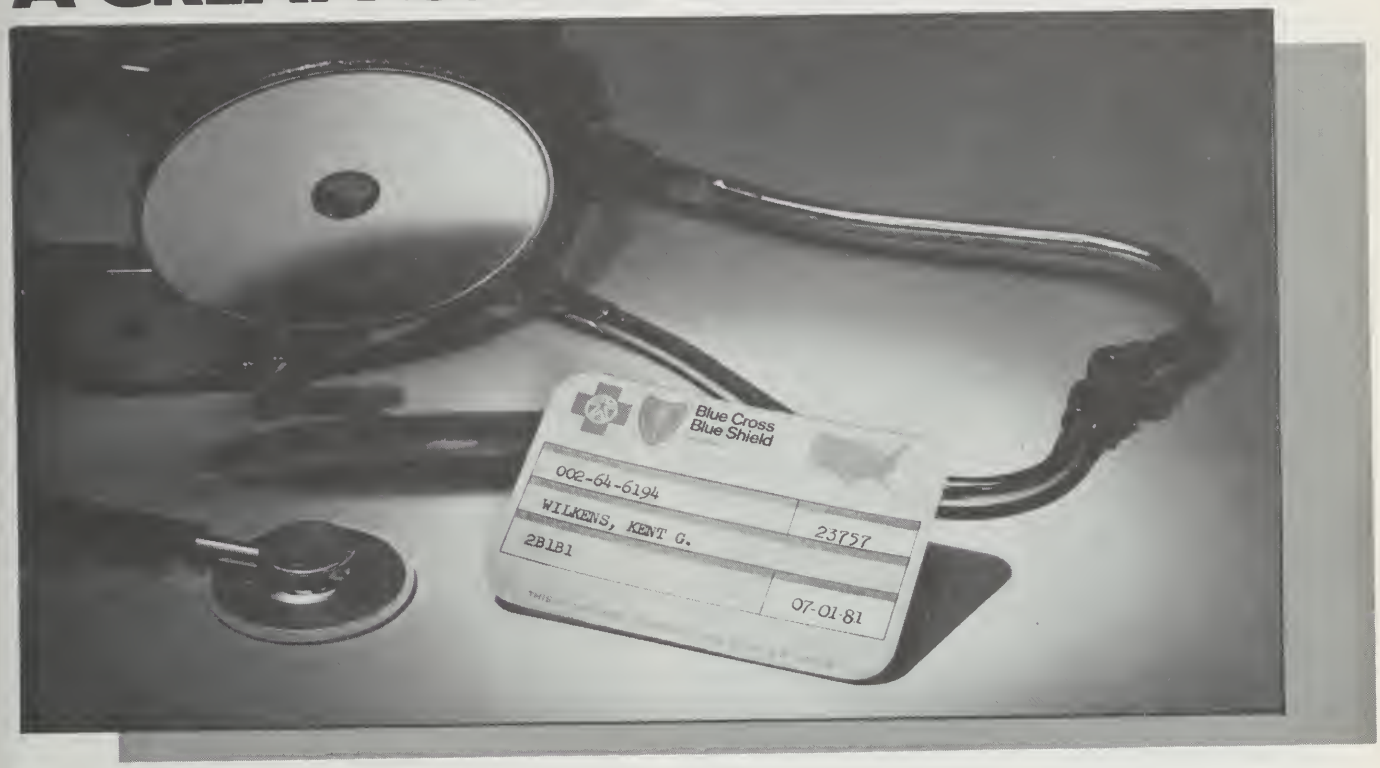
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EDITORIALS

Stress and the Physician

The Epistle of Paul the Apostle to the Galatians 6:1:

Brethren, if a man is overtaken in any trespass, you who are spiritual should restore him in a spirit of gentleness. Look to yourself, lest you too be tempted.

Physicians are trained during their formal education and continuously throughout active medical practice to minister to the ills of mankind in an honorable and ethical manner. Due to the process of introspection which this involves, a physician finds it necessary to rationalize within himself or herself most of the situations encountered in patients.

Dr. Nancy C. A. Roeske, in a monograph "Stress and the Physician" in this issue of THE JOURNAL, deals with the maintenance of competence and the diagnosis and management of incompetence. One of the quotations she cites—"These are the duties of a physician: 'First to heal his mind and give help to himself before giving it to anyone else' "—emphasizes the interplay occurring between physician and patient and accentuates the importance of competence unhindered by lack of skill, emotional distress or improper motivation.

Role strain is identified by Dr. Roeske as the effect produced on the physician by the stress of the demands for high quality professional performance and the need for personal gratification. When role strain exists to a degree not amenable to natural resolution, it becomes a disabling handicap of varying proportion and may be complicated by use of drugs or by the presence of covert emotional or mental abnormality.

Obviously, the stress of medical practice and the resulting strains occur in slight and often unrecognized and unappreciated examples in all of us. It is the early detection and identification of the role strains that become disabling which comprise the obligations of all physicians in their role as physicians to each other.

It is a task that requires the solicitous, kindly and forceful intervention of a colleague or colleagues. Early in the development of the disability, the physician-patient is not aware of the disability. Later, if he or she does become aware of addiction or emotional instability, the tendency is to conceal the defect. Physicians, due to their various talents, are especially adept in protecting their incapacitations from discovery.

It is of the utmost importance to discover the disabled physician early in the process. The earlier the diagnosis, the earlier the physician is confronted, the earlier the victim acknowledges the disability and manifests the desire for cure—the swifter is the cure and the more durable it proves to be. The salvage rate is in inverse proportion to the duration of the disability.

Stress is one of the necessities of life. Indeed, stress may be the ingredient of human experience that supplies the joy of life, the thrill of winning, the satisfaction of success. However, as with other necessities such as oxygen, sodium and water, there are limits of normality and excesses and deficits to be reckoned with. And, unlike the usual metabolites, stress differs also in that

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human beings differ in reaction to it, not only to the amount of stress but also as to the type of stress. Some thrive on a type of stress that is destructive to others.

Dr. Roeske, in her thoughtful discussion of origins of stress, outlines a variety of stresses inborn to medical education and medical practice. Some of these stresses are amenable to modification, others just come with the job. It is no wonder that those who are dedicated to medicine and who by definition are all, in some degree, different as compared to all others in the group, are subject to a large and almost bewildering set of responses to role strain.

One of the ailments associated popularly with stress and strain is burn out. Maslach[1] describes this condition as an emotional exhaustion that involves cynicism and a dehumanized perception of people. Burn out is not related to role stress.

In medical situations Maslach believes the basic cause of burn out lies in the disruptive emotional aspects of caring for people who are demanding and unreasonable or who have types of illnesses that are difficult to treat. It is also associated at times with those who care for a large number of patients and who work long hours.

Fox[2] describes a level of professional empathy and resulting "detached concern" as a prime requisite for professional behavior. Learning a useful patient-physician emotional distance is an essential lesson for a physician but one which is sometimes difficult for the student-physician.

Individuals who acquire the knack of functioning with professional empathy and detached concern and who enjoy their work and even, at times, may work to excess, gain their satisfaction from contemplation of a task well done or of a difficult task completed despite obstacles.

On the other hand, those who work from a completely selfish base may miss the joy of accomplishment and, unless financially rewarded to an inordinate extent, become bored and uninspired and attribute their mental state to burn out.

The practicing physician can help colleagues and physicians in training understand the sometimes subtle differences between stress, strain, burn out and depression.

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2. Fox R: Training for Uncertainty, in Merton RK, *et al,* editors, *The Student Physician,* Harvard University Press, Cambridge, Mass., 1957, pp 207-241.

Damaging Life Patterns

It is evident, at least in the United States, that most people do not realize what preventive medicine is.

Dr. Daniel T. Cloud, president of the AMA, in an address on "Affirmative Leadership," proclaims, "According to federal estimates, illnesses and accidents caused by damaging life patterns account for more than half of the $247 billion total health care expenditures in this country."

This brings up another general observation: Almost everyone is in favor of lowering the cost of medical

CONTINUED ON NEXT PAGE

LETTERS

I.U. Begins Study of Eye Function, Academic Ability in Grade-Schoolers

Investigators from the Department of Ophthalmology, Indiana University School of Medicine, and educators from the Washington Township (Marion County) school system have begun a comprehensive study of eye function and academic ability.

This study, which began in November 1981, is supported by a grant from the National Eye Institute and is programmed initially for three years.

Specifically, all first, second and third grade students in the Washington Township school system will receive an eye examination, including acuity, color vision, determination of dominant eye, and other measures. This information will be combined with results of school testing and grades; both sets of data will be placed in a computer.

Detailed and comprehensive statistical analysis of the data will provide insight into the relationship of ocular function and academic performance. This study is being undertaken so that ophthalmologists and other health care professionals, along with educators, can advise parents appropriately and assist students more effectively.

To obtain funding from the National Eye Institute, the study was subjected to careful scrutiny regarding relevance and methodology.

Preliminary results will be available in one year and final results from the initial phases of the study will be completed in three years. The investigators plan to apply for continuation grants so that the 2,200 students comprising the study population can be studied throughout their entire 12 years of school in the township system.

All students who have uncorrected visual defects will be advised to seek care from their private physician.

Eugene M. Helveston, M.D.
Coleman Professor,
Chairman, Dept. of Ophthalmology,
I.U. School of Medicine

care. Very few people know or are willing to acknowledge the means by which half the cost of medical care may be eliminated.

Dr. Cloud's address is quoted freely:

"Smoking accounts for 350,000 premature deaths each year, 80% of chronic lung disease, 83% of lung cancer in males, 43% of lung cancer in females, 77 million excess work loss days per year (20% of all work loss days), and 150 million excess sick bed days per year . . .

"In 1977 there were 464,000 cases of alcoholism in short-stay hospitals alone, over 106,000 cases of cirrhosis of the liver, and 18,000 cases of alcoholic psychosis . . .

"There were 53,000 vehicular accident deaths last year, and two million disabling injuries. Half of the deaths and one-fourth of the injuries were caused by alcohol. Traffic accidents are the leading cause of death in young people. Half are alcohol related . . .

"People who follow good health habits such as not smoking or drinking, regular exercise, proper weight maintenance, and regular sleep, will live five to 10 years longer . . .

"Think of it. We spent nearly $125 billion last year on largely preventable illnesses and accidents. Clearly, prevention could save enormous sums, far more than all other cost containment efforts combined . . . ."

The next time anyone complains to you because of the high cost of medical care just tell him or her: "Half the cost of medical care can be eliminated by eliminating the preventable causes of death such as smoking, drinking, damn-fool driving and overeating."

'Burn-Out' a 'Cop-Out'?

Guest Editorial

MARION E. ALBERTS, M.D.
Des Moines, Iowa

WE HEAR more and more about "burn-out." It is described as a state of fatigue or frustration brought about by strong devotion to a cause, or a way of life, or a relationship that failed to produce the expected reward. The "burned-out" person is said to have reached a state of emotional, mental and physical exhaustion. The victim feels hopeless and helpless. Chronic fatigue produces a negative lifestyle.

Our lives become an endless merry-go-round. We are urged to seize every moment, look at it, try it on, exhaust it and hold on to it until there is nothing left of it. We live in a world of want and desire, but unfortunately in exact economic terms we overshadow our true needs with unnecessary wants and desires. We are pushed often beyond our capacity in pursuit of glittering desires.

In past days, when our states were becoming united, the needs of life and the pursuit of happiness were foremost. Our driving motivation was to develop settlements and govern them for the good of all. Life has become more complex as we strive onward in quest of the moon and other planets. In medicine we search for new and wonderous types of therapy. We seek the tools to ply our diagnostic acumen even further. Peter Mere Latham (1789-1875) said, "The older we get, and the more conversant we have become with diseases, patients and remedies, the more stress do we find ourselves laying upon a man's constitution." Stress and its consequences are not new, but often our responses change with the times.

It would appear, to avoid "burn-out," persons under stress must learn to recognize the danger signs and then acquire the safeguards to help in coping with this manifestation. The individual must examine himself to understand how he already is coping with his life-pattern. Short term goals must be realistically set. Constructive approaches must be devised and flexibility must be practiced. Vulnerabilities must be acknowledged for there is a limit to everybody's energy. A good insight into the entire problem was offered by Sir William Osler when he observed, "Things cannot always go your way. Learn to accept in silence the minor aggravations, cultivate the gift of taciturnity and consume your own smoke with an extra draught of hard work, so that those about you may not be annoyed with the dust and soot of your complaints."

Like the beer advertisement says, "You go around only once." So our attitudes about life need to be realistic, as do our goals. Let not a "burn-out" be a "cop-out," for life is too beautiful to cast it all aside for fleeting moments of false success. Perhaps as we age we can more easily demonstrate that genius consists of the power to apply the originality of youth to the experience of maturity. Isn't life much too beautiful to "cop out" or "burn out?"

The author is scientific editor of the Journal of the Iowa Medical Society, from which this editorial is reprinted by permission. October 1981.



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Poisonous Chances

Guest Editorial

THE INDIANA POISON CENTER is called upon for help or advice about 45,000 times a year. If it means nothing else, this large number indicates that there is a big chance of someone accidentally being poisoned.

The calls which come to the center at 1001 W. 10th St., Indianapolis, come from the general public and the medical profession alike. Among all the substances that are poisonous, industrial and household chemicals pose a serious threat. From them powerful cleansing products are created which will clean aluminum siding, bricks, masonry or air conditioners, pre-soak heavily soiled laundry and remove spots on clothing and rust from metals.

Such powerful cleaners are labor savers, but some of them can create a dangerous situation. These are the cleaners that contain hydrofluoric acid, a corrosive agent that can severely burn. It is so dangerous that Dr. James B. Mowry, director of the Poison Center, believes the public should be alerted to the peril.

Anyone exposed to the acid may suffer permanent scarring and even disability. At first the patient may notice only a slight tingling and redness of the skin, Dr. Mowry said, and it doesn't feel like an acid burn. However, the acid attacks deep cells in the skin and bones and without immediate attention those exposed may lose their nails and the ends of their fingers. Nor does one have to come in contact with the acid, as it fumes can affect the eyes, causing burning and swelling.

The Poison Center has been asked frequently for help in such cases. Dr. Mowry advises anyone planning on using a strong cleaner to first read the label to see if it contains HF Acid. It will be identified as HF or HF Acid and the user should be sure to wear rubber gloves and work in a well-ventilated area.

Those who plan to do heavy cleaning themselves instead of hiring professionals should pay heed to this advice from the Poison Center. It would be wise to remember the center's phone number, 1-800-382-9097. The staff knows what to do about hydrofluoric acid poisoning, and if hospital treatment is necessary, will alert the emergency room. It is reassuring to know that such a center is available for any inadvertent victim of any kind of poisoning.

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Enough Is Enough!

Guest Editorial

WILFRED E. WOOLDRIDGE, M.D.
Editor
Missouri Medicine

THE ISSUE OF *Time Magazine,* June 1, 1981 was amazing. The front cover was devoted to "Heart Attacks, New Insights, New Treatments" in large letters together with a schematic picture of a heart. Page 52 began an excellent seven-page article which dealt with the causes and incidence of heart disease, diagnostic procedures, newer medications and surgical treatments now available. The index of that issue on page 4 stated, "Armed with new techniques and potent drugs, doctors are taming heart disease, the nation's No. 1 killer. To help the trend, Americans should stop smoking, eat less rich food and exercise regularly."

Wonderful! Journalism at its best!

Now, let's look at the remainder of that issue:

(1) Immediately behind that front cover was a *six-page foldout* extolling Vantage cigarettes.
(2) Page 21 was devoted entirely to Belair cigarettes (a curious misnomer, in itself).
(3) All of pages 72 and 73 praised Marlboros.
(4) The back cover maintained that "This is your world. Nobody does it better than Winston Lights."

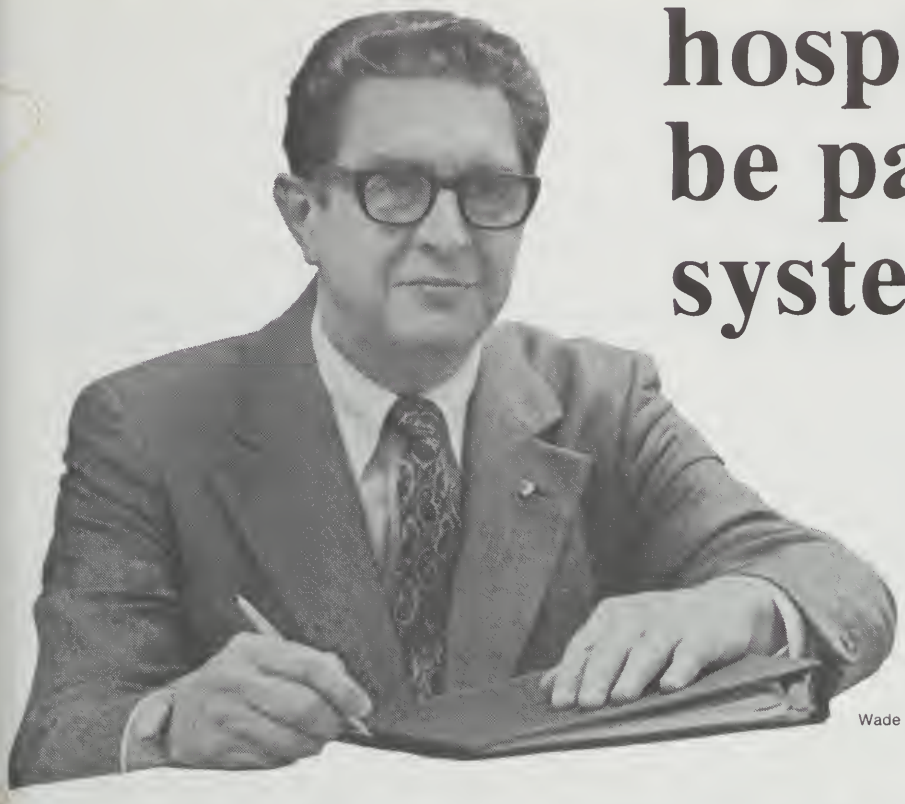
Now really! This is just too much.

Curiously, the lead article on page 12 of that same issue dealt with a *Time* national poll and the conservative national swing. As an answer to one of the questions the responders stated, 60% to 37%, that "the media reflect a permissive and immoral set of values."

And they put prostitutes in jail!

Reprinted by permission from the October 1981 issue of *Missouri Medicine,* the journal of the Missouri State Medical Association.

Someday nearly all hospitals will be part of a system.



Wade Mountz, President, NKC, Inc.

The others will wish they were.

Nearly one-third of the nation's hospitals are already owned or managed by systems* that are designed to achieve superior results through better management of scarce resources.

Hospital administrators and boards that fail to recognize the complexities of operating a hospital in today's highly competitive environment are flirting with extinction. The fact is: Few hospitals can successfully go it alone.

At NKC, we are convinced that within this decade, most hospitals will find it advantageous to join a system. So, we have committed ourselves to a leadership role in managing not-for-profit community hospitals. And we are picking our partners. Our results have been most impressive, and we will be pleased to share them with you.

For further information on how NKC can help your hospital survive, contact William Galvagni, vice president.

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NKC, Inc. is a consolidation formed for excellence in patient-centered care.

* Twenty-nine percent of the nation's general community hospitals were in centrally managed multi-hospital systems in 1980. And this number is multiplying rapidly. (April 1981 issue, *Modern Healthcare)*

Individual Retirement Accounts

Commentary

RICHARD L. LESHER
President
U.S. Chamber of Commerce

HOW WOULD YOU like to turn a $20-per-week savings account into a $300-per-week income when you retire?

If you find that hard to believe, I would like to call to your attention a little-publized feature of President Reagan's tax package—Individual Retirement Accounts (IRA). Under the landmark tax legislation just passed by Congress, all American workers, as of January 1, 1982, became entitled to open such accounts whether or not they are participants in an employer-sponsored pension plan.

These new provisions put a self-sufficient retirement within reach of the average working American. Suppose you are now 35 years old and earn $24,000 a year for your family of four—the national median income. If you deposit $1,000 into an IRA each year (that's less than $20 per week), and do so until you are age 65, you can deduct the annual deposit from the income you report each year for tax purposes. This provision in itself will reduce your yearly federal income tax burden by about $220, meaning that of the $20 per week you deposit, Uncle Sam is "contributing" $4.23 of that in the form of a lower tax bill.

The long range benefits are even more impressive. If you save $1,000 a year for 30 years and earn, say eight percent interest (a conservative figure now and for the foreseeable future), at age 65 you will have a retirement fund totalling $133,770—all of that generated from just $30,000 in deposits! If you decided to pay yourself annuity from your account for a 15 year period, then you would have an income of just over $300 per week, which combined with Social Security and a company pension, makes for a comfortable, secure retirement.

Turn a small weekly savings into a comfortable retirement income; realize immediate benefits in the form of reduced tax payments; contribute to capital formation which will mean increased productivity and prosperity—these are the opportunities we can seize by opening Individual Retirement Accounts. Any way you look at it, it's a winning proposition for you and our nation.

Physician Loses Countersuit

A VERDICT FOR a physician in an action against an attorney for malicious prosecution was properly set aside, an Indiana appellate court has ruled.

A patient who had been suffering from headaches underwent a series of diagnostic tests and an anterior cervical fusion. The attorney filed an action against the physician for malpractice. A trial court granted summary judgment on agreement of the attorneys in favor of the physician. The medical records revealed that the physician did not participate in the surgery. His sole involvement in the patient's care was prescribing a laxative.

In a malicious prosecution action against the attorney, the physician claimed that he was aware of those facts prior to suit and thus lacked probable cause to bring the action against the physician. A jury awarded the physician $25,000 in damages, but the trial court set aside the jury's verdict on the ground that the malpractice action was terminated by agreement.

Affirming the decision, the appellate court said the physician failed to meet his burden of proving lack of probable cause. The evidence was uncontroverted that the attorney believed he had a potential claim against the physician for his involvement in the patient's injuries. The attorney was not liable to the physician for allegedly wrongfully continuing the malpractice action once he discovered that the physician did not participate in the patient's surgery, the court said.—*Wong v. Tabor,* 422 N.E.2d 1279 (Ind. Ct. of App., July 8, 1981)

Courtesy of *The Citation,* Nov. 15, 1981.

For your patients' benefit...

BEFORE YOU WRITE OUR NEXT ANTIARTHRITIC PRESCRIPTION, PLEASE READ THIS MESSAGE



Boots announces a pharmaceutical first.

TWO WAYS YOU WILL SAVE MONEY WIT

Introducing

RUFEN® (ibuprofen)

$1.50 REBATE DIRECT TO YOUR PATIENTS ON EVERY PRESCRIPTION OF 100. REFILLS INCLUDED.

One dollar fifty cents returned for every Rebate Coupon your patients mail in.

Every bottle of 100 tablets of RUFEN 400 mg has a Rebate Coupon attached, with full instructions for redemption.

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AND RUFEN IS PRICED LOWER TO BEGIN WITH.

Boots has already priced RUFEN lower to the wholesaler and the retailer. And if these savings are passed along, as they should be, your patient will receive the benefit of this lower price. Add these savings to the rebate, and your patients receive substantial relief from the costs of a medication many of them may take for years.

RUFEN IS NOT A GENERIC. BOOTS IBUPROFE IS THE ORIGINAL.

And if you wish, RUFE may be substituted for Motrin®, because it is bio equivalent.*

Original research by Th Boots Company Ltd., of Nottingham, England, developed ibuprofen.

And though we introduced it ourselves elsewhere around the world, licensed ibuprofen for sale in the United States.

Motrin® (ibuprofen) is a registered trademark of The Upjohn C

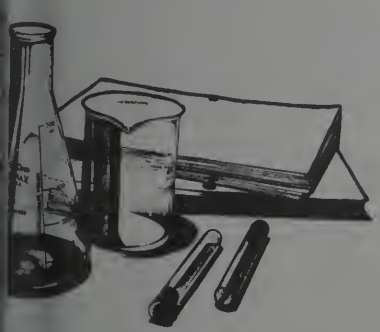
ARTHRITIC PATIENTS
BUPROFEN THERAPY.

You first came to know it as Motrin (ibuprofen), manufactured by Upjohn.

Now, as we have established facilities in America, we hope you'll come to know Boots brand name for ibuprofen as RUFEN.

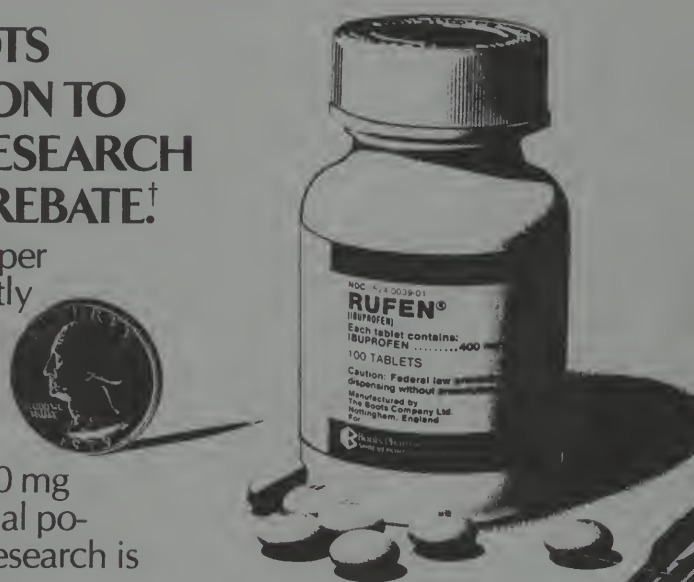
BIOEQUIVALENCY? OF COURSE.*

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Rufen® (ibuprofen)

*Data on file.

†Contributions made to: International League Against Rheumatism.

Boots announces a pharmaceutical first.

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Introducing

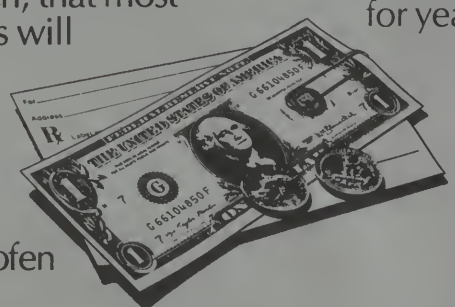
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Motrin® (ibuprofen) is a registered trademark of The Up

Membership Report for 1981

December 31, 1981

COUNTY	ACTIVE	EXEMPT	ISMA TOTAL	AMA TOTAL
ADAMS	12	1	13	10
BARTHOLOMEW-BROWN	78	10	88	69
BENTON	3	1	4	2
BOONE	13	5	18	11
CARROLL	10	2	12	11
CASS	35	5	40	26
CLARK	71	1	72	48
CLAY	7	2	9	9
CLINTON	12	4	16	11
DAVIESS-MARTIN	15	3	18	12
DEARBORN-OHIO	19	—	19	11
DECATUR	9	2	11	8
DEKALB	14	6	20	18
DELAWARE-BLACKFORD	134	16	150	103
DUBOIS	32	3	35	25
ELKHART	116	13	129	100
FAYETTE-FRANKLIN	24	2	26	15
FLOYD	54	5	59	45
FORT WAYNE-ALLEN	366	49	415	350
FOUNTAIN-WARREN	9	2	11	9
FULTON	5	2	7	5
GIBSON	9	5	14	13
GRANT	74	14	88	74
GREEN	10	8	18	12
HAMILTON	28	1	29	18
HANCOCK	27	1	28	18
HARRISON-CRAWFORD	6	1	7	6
HENDRICKS	32	2	34	21
HENRY	33	4	37	26
HOWARD	81	9	90	82
HUNTINGTON	13	6	19	7
INDIANAPOLIS-MARION	1171	193	1364	1101
JACKSON	21	4	25	17
JENNINGS	2	1	3	2
JASPER	8	2	10	8
JAY	13	3	16	11
JEFFERSON-SWITZERLAND	27	4	31	24
JOHNSON	36	2	38	28
KNOX	48	4	52	43
KOSCIUSKO	18	1	19	12
LA GRANGE	7	2	9	5
LAKE	528	51	579	487
LA PORTE	81	9	90	74
LAWRENCE	44	3	47	24
MADISON	94	17	111	72
MARSHALL	19	—	19	16
MIAMI	17	3	20	18
MONTGOMERY	21	6	27	15
MORGAN	19	4	23	18
NEWTON	5	—	5	3
NOBLE	13	1	14	12
ORANGE	6	1	7	4
OWEN-MONROE	119	13	132	67
PARK-VERMILLION	12	1	13	10
PERRY	5	2	7	6
PIKE	1	—	1	1
PORTER	95	5	100	82
POSEY	3	2	5	5
PULASKI	5	1	6	4
PUTNAM	14	3	17	15
RANDOLPH	13	6	19	13
RIPLEY	5	3	8	8
RUSH	7	5	12	11
ST. JOSEPH	234	49	283	282
SCOTT	7	1	8	8
SHELBY	21	3	24	17
SPENCER	2	—	2	1
STARKE	8	3	11	8
STEUBEN	14	2	16	11
SULLIVAN	8	4	12	11
TIPPECANOE	171	21	192	155
TIPTON	10	3	13	11
VANDERBURGH	336	43	379	323
VIGO	123	23	146	99
WABASH	23	3	26	13
WARRICK	12	1	13	4
WASHINGTON	7	1	8	7
WAYNE-UNION	77	12	89	72
WELLS	48	9	57	54
WHITE	5	2	7	7
WHITLEY	8	2	10	8
TOTALS	4942	719	5661	4482
FOR INFORMATION:				
1980 Totals	4786	707	5493	4379
1979 Totals	4691	662	5353	4287
1978 Totals	4616	602	5218	4058
1977 Totals	4529	572	5101	4122
1976 Totals	4341	581	4922	4110

Percutaneous Transluminal Coronary Artery Dilatation

W. SCOTT ROBERTSON, M.D.
PAUL L. McHENRY, M.D.
ROBERT D. KING, M.D.
JOHN F. PHILLIPS, M.D.
STEPHEN N. MORRIS, M.D.
JAMES C. DILLON, M.D.
Indianapolis

PERCUTANEOUS transluminal balloon dilatation of the coronary arteries has recently received significant attention in both the lay and scientific press. The number of centers performing the technique has increased dramatically both on a national level and within Indiana. A general review of the topic thus seems timely.

The percutaneous approach to occlusive vascular disease began in 1964 when Dotter and Judkins[1] described a catheter system for sequential dilatation of stenotic arterial lesions. Primarily investigated in Europe, the technique proved to have a high incidence of thrombotic and hemorrhagic complications.[2] In 1973 Dr. Andreas Gruntzig in Switzerland developed a double-lumen balloon dilatation catheter for dilatation of stenotic peripheral vascular arterial lesions. He reported short and long term results comparable to those achieved with vascular surgery.[2] He subsequently miniaturized the balloon dilatation catheter for the coronary vasculature, and in September 1977 performed the first percutaneous dilatation of a coronary artery in man.[3] Since that time Dr. Gruntzig has accumulated a large experience, first in Switzerland, and subsequently at Emory University in Atlanta.

With the initial success described by Dr. Gruntzig[2] and his collaborators in the United States,[4] the technique gained wide popularity, and an increasing number of medical centers began to perform the procedure. In an effort to evaluate the efficacy of this new technique, and gain data from the numerous centers where it was being practiced, the National Heart, Lung and Blood Institute (NHLBI) has established a national registry where data collection is centralized. As of April 1981, 73 centers had submitted data on 1,500 patients. Review of these data has been reported by the registry.[5] Based on initial data gained from the registry, future studies are being designed to evaluate the efficacy of balloon dilatation of the coronary arteries in a controlled, prospective manner.

From the Krannert Institute of Cardiology, Department of Medicine, and the Department of Surgery, Indiana University School of Medicine, and from the Veterans Administration Medical Center, Indianapolis, Ind.

Supported in part by the Herman C. and Ellnora D. Krannert Fund, by Grants HL-06308 and HL-07182 from the National Heart, Lung and Blood Institute, National Institutes of Health, Bethesda, Md., and by the American Heart Association, Indiana Affiliate, Inc.

Correspondence: W. Scott Robertson, M.D., Indiana University School of Medicine, Krannert Institute of Cardiology, 1001 W. 10th St., Indianapolis, Ind. 46202.



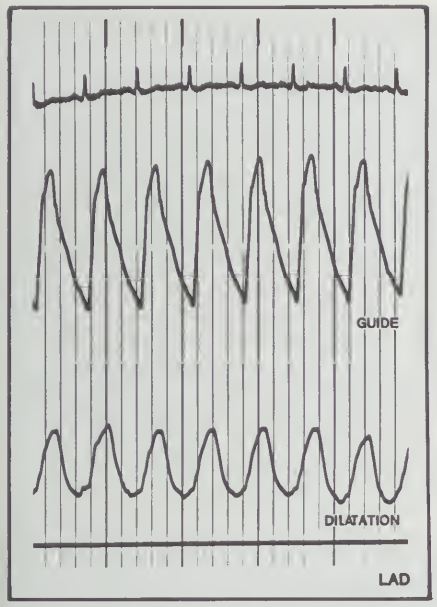
THE JOURNAL offers its readers a Continuing Medical Education series of articles prepared by the faculty of the Indiana University School of Medicine. The program is coordinated and supported by a grant from the school's Division of Continuing Medical Education.

As an organization accredited for continuing medical education, the Indiana University School of Medicine certifies that this CME activity meets the criteria for one credit hour in Category 1 for the Physician's Recognition Award of the American Medical Association, provided it is used and completed as designated.

To obtain Category 1 credit for this month's article, complete the quiz on Page 125.

Technique

The technique of percutaneous transluminal coronary angioplasty is similar to standard coronary arteriography in that the involved coronary artery must be catheterized in the usual fashion. As with a routine catheterization, preformed or Sone's catheters may be used, and the procedure may be performed from either the brachial or femoral arteries. Once the "guiding" catheter is in the vessel, the dilating



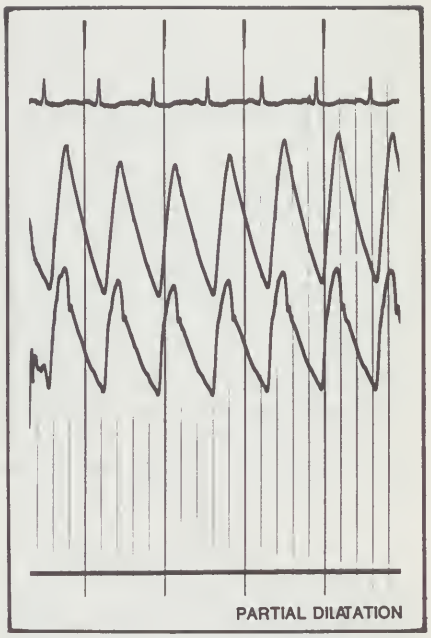


FIGURE 1a (left): Pressure tracing recorded during angioplasty of the left anterior descending. Simultaneous pressures from the guiding catheter tip proximal and the balloon dilatation catheter tip distal to the lesion. An 85 mm systolic gradient across the stenotic lesion is noted. FIGURE 1b (right): After three inflations of the balloon, the gradient has been significantly reduced.

balloon catheter is then passed through it into the diseased vessel.

The balloon catheter is 1.0 to 1.5 mm. in diameter (deflated). The balloon itself is 1.2 to 2.0 cm. in length and, when inflated, 2.0 to 3.7 mm. in diameter depending on the catheter selected. The balloon is made of polyvinylchloride which allows maintenance of shape. The appropriate size balloon is chosen from angiographic measurements of the vessel proximal and distal to the obstructive lesion.

Once the balloon catheter is in the diseased vessel, it is advanced to a position where the balloon spans the stenotic lesion with the catheter tip distal to the lesion. In this position simultaneous pressures can be recorded from the tip of the balloon catheter, distal to the lesion, and from the tip of the guiding catheter, at the ostium of the coronary artery. These simultaneous measurements reveal the magnitude of the pressure gradient across the stenotic lesion. A representative example of such a pressure gradient is shown in *Figure 1*. The balloon is then inflated to 4-6 atmospheres of pressure by means of a pressure gun with a CO_2 cartridge.

The efficacy of the dilatation can be assessed immediately from the pressure gradient across the lesion as shown in *Figure 2*. Usually a minimum of three inflations or a maximum of 10 to 13 inflations are performed. Once the gradient is obliterated, the balloon catheter is withdrawn and cineangiograms are repeated to assess the angiographic improvement. Typically, the vessel lumen appears significantly enlarged and there is an irregular appearance to the vessel wall at the site of dilatation (*Figure 3*). This irregular appearance is thought to result from controlled dissection in the vessel wall at the site where the atherosclerotic plaque has been cracked. This mechanism will be discussed further below.

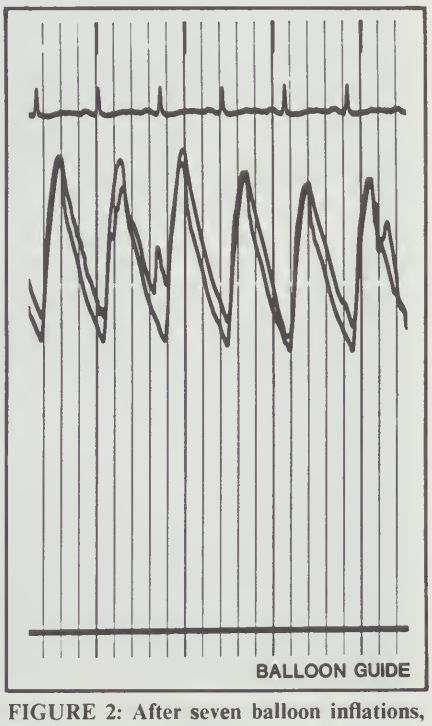


FIGURE 2: After seven balloon inflations, the gradient has disappeared across the stenosis.

The procedure is performed under local anesthesia, usually in one to two hours. All patients are monitored for 24 hours in the Coronary Care Unit after the procedure, but are fully ambulatory the next day.

Some centers provide cardiovascular surgical standby for all patients, with an operating room reserved. The practice at Indiana University Medical Center is to have all patients undergo necessary blood work and preliminary evaluation for open heart surgery, but in fewer than half the cases is the operating room actually reserved and the surgical team on standby. The final decision in this respect is based on the anatomy of the coronary vasculature in any given patient. However, it is imperative that an intra-aortic balloon pump be immediately available (on call), and the open heart surgical team be available within a reasonable period of time in case of an emergency.

The national experience from the

NHLBI registry indicated 5% of patients have suffered acute myocardial infarction during the procedure, and approximately 7% of all patients have had to undergo immediate coronary bypass surgery.[5] Our own experience to date has been that one of 23 patients (as in *Table 2*) has had to go from the catheterization laboratory to the operating room. This patient had an inadequate dilatation and developed ventricular ectopy without evidence of myocardial infarction.

One of the technical aspects of this procedure which may differ from center to center is the pharmacologic protocol. Our patients are given an antiplatelet regimen of aspirin and Persantine for three days prior to the procedure. During the procedure they receive intravenous Heparin and Dextran. The Dextran is continued for 24 hours. Intravenous nitroglycerin is also given at the start of the procedure and continued for 24 hours. Sublingual nifedipine is administered at the onset of the procedure. The antiplatelet agents are continued indefinitely after discharge from the hospital.

All patients who are capable undergo treadmill exercise testing before and after the procedure.

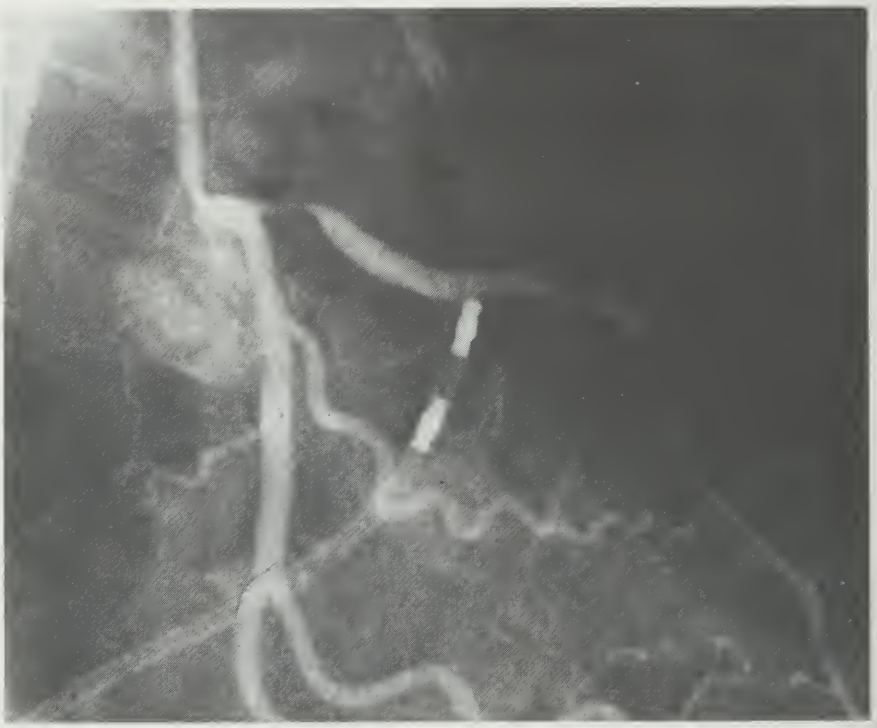


FIGURE 3a: Right anterior oblique projection reveals a tight proximal stenosis of the left anterior descending artery. As noted in Figure 1, the gradient across the lesion was 85 mm.

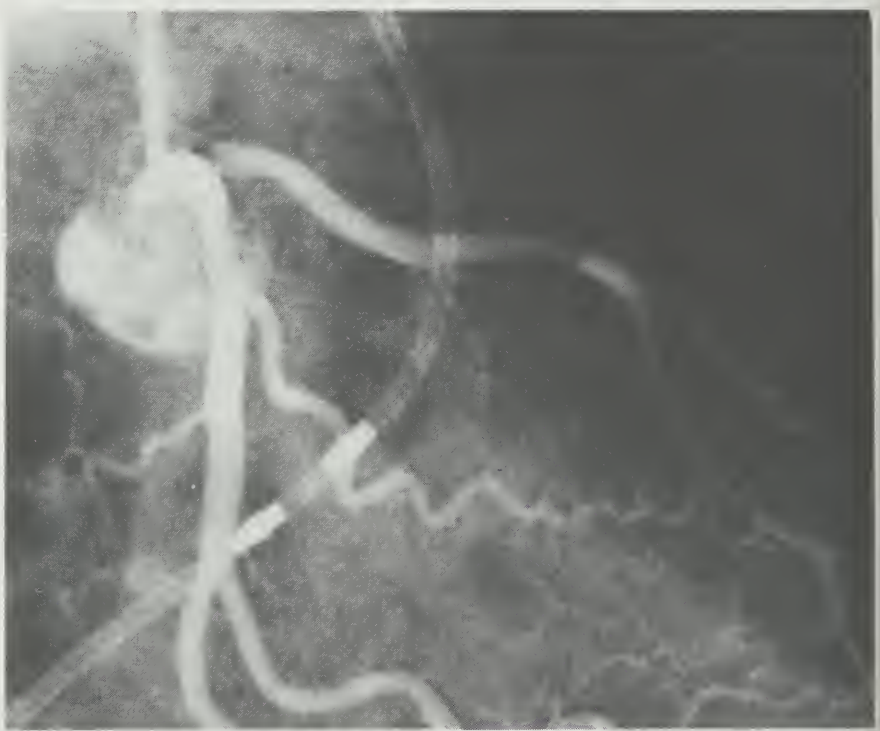


FIGURE 3b: After balloon dilatation, the stenosis appears to have been significantly diminished. There is an irregular appearance to the vessel wall at the site of dilatation that is thought to represent controlled dissection.

Results

In assessing the results of coronary angioplasty several factors must be considered: 1) The technical success of the dilatation procedure. 2) Symptomatic improvement. 3) Objective evidence of improved myocardial blood flow. 4) Complications.

Results—Technical Success

Table 1 cites the success rate for the actual physical dilatation of the stenotic coronary arteries. These data are from the National NHLBI registry and represent attempted dilatations on 1,586 stenotic arteries. Technical success is defined as

a greater than 20% improvement angiographically in the stenosis. It should be noted that these figures are pooled data from a number of institutions having a wide range of experience or expertise with the procedure. *Table 2* illustrates the initial experience at the Indiana University Medical Center.

Results—Symptomatic Improvement

In Gruntzig's initial series,[2] 80-85% of patients fulfilling the angiographic criteria of successful dilatation had symptomatic improvement. Gruntzig recently reported that his initial patient remained symptom free at 48 months.[6] Long term follow-up data from the NHLBI registry, however, are not available. Our experience with initial relief of pain is similar (greater than 90%) but our maximum follow-up period is currently only five months. The long term results remain to be seen.

Results—Myocardial Perfusion

Efforts have been made to objectively assess the results of angioplasty on coronary blood flow and myocardial perfusion.[7, 8, 9] These studies have reported improvement if not normalization in both functions. Hirzel, *et al*[7] have documented an improvement in myocardial perfusion with Thallium 201 scintigraphy.

We have elected to follow our patients with serial treadmill exercise testing, about which little has been reported to date. At present our numbers are very small, but *Table 3* includes seven illustrative cases. As can be seen, most of the patients were able to increase duration of exercise as well as exercise double product after coronary angioplasty. No patient had exercise induced angina following successful angioplasty. Only one of the patients had ST-T wave abnormalities during exercise testing after angioplasty.

TABLE 1

TECHNICAL SUCCESS*:

Data from NHLBI Registry: (coronary angioplasties attempted: 1586)

Total Successful	– 63%
Success by Vessel	
– LAD	– 67%
– RCA	– 56%
– LCX	– 42%

*Successful dilatation defined as reduction in angiographic stenosis > 20%; stenosis reduced by > 20%

LAD = left anterior descending artery
RCA = right coronary artery
LCX = left circumflex artery

TABLE 2

Indiana University Medical Center

Successful Dilatations	17/23	(73%)
LAD	11/15	(73%)
RCA	4/5	(80%)
LCX	0/1	(0%)
Vein Grafts	2/2	(100%)

LAD = left anterior descending artery
RCA = right coronary artery
LCX = left circumflex artery

One patient had experienced ventricular fibrillation during his initial exercise test (Patient 3). After successful dilatation of a critical stenosis in the left anterior descending artery, he demonstrated no arrhythmias with repeat testing.

Results—Complications

Table 4 lists the complications of angioplasty as compiled by the NHLBI registry. Overall there was a major complication rate of approximately 10%. It should again be emphasized that the centers reporting these data had a wide range of experience with the procedure. Our own experience to date is listed in *Table 5*. The single myocardial infarction in our series resulted from occlusion of a diagonal branch of the left anterior descending artery, and the patient evolved a small lateral wall infarction. The object of the procedure in this case, a proximal stenosis in the left anterior descending, was successfully dilated and the patient had an uneventful course. The single patient undergoing emergency surgery was sent primarily because of an inability to dilate a significant proximal stenosis in the left anterior descending artery. It was performed emergently rather than electively because the patient developed ventricular tachycardia following attempted dilatation and unrecognized myocardial injury was suspected. However, myocardial infarction could not be confirmed either intraoperatively or during the postoperative period.

Mechanism

The mechanism by which the atherosclerotic lesion is dilated has defied precise definition. Numerous studies have been performed in animals[10, 11] and on cadavers[12] but there is obvious reluctance to extrapolate such data to living humans. However, a recent report in the *New England Journal of Medicine*[13] lends support to a principal experimental theory. This concept suggests that dilatation of the balloon causes a crack in the atherosclerotic plaque that extends into the media of the vessel. This rupture usually occurs at the thinnest point in the plaque, and results in enlargement of the lumen. This represents, in essence, a discrete dissection which is prevented in most cases from extending proximally or distally by the fibrotic reaction surrounding the atherosclerotic lesion.

Patient Selection

The initial reports on coronary angioplasty estimated that 5-10% of patients who would otherwise undergo coronary bypass surgery would be suitable candidates for coronary dilatation.[2, 4] The criteria usually cited to identify good candidates for coronary angioplasty are listed in *Table 6*. Patients should

TABLE 3

EXERCISE TREADMILL PRE- AND POST-CORONARY ANGIOPLASTY

Patient No.	1		2		3		4		5		6		7	
Vessel Dilated	LAD		RCA		LAD		LAD		LAD, RCA		LAD		LAD	
	pre	post	pre	post	pre	post	pre	post	pre	post	pre	post	pre	post
Duration Exercise (sec)	300	420	O*	270	960	1020	390	540	240	720	390	540	430	540
Maximum Exercise (H.R.)	136	130		115	158	154	107	130	88	110	130	158	107	123
Maximum Exercise	186	210		164	178	194	180	180	170	166	180	212	170	200
(B.P.)	88	80		80	80	80	98	90	90	86	90	80	80	80
Chest Pain	Yes	No		No			Yes	No	Yes	No	Yes	No	No	No
ST Depression	1 mm↑	0		#	2mm	0	1 mm	1 mm	2 mm	0	1 mm	0	0	0
Arrhythmia	0	0			VF	0	0	0	0	0	0	0	0	0
Medication	IND	IND		Dig	NIF	NIF	IND	IND	IND	IND	NTG	NTG	Cor	0

LAD = left anterior descending artery
RCA = right coronary artery
H.R. = heart rate
B.P. = blood pressure
IND = Inderal

Dig = Digoxin
NIF = Nifedipine
NTG = Nitrates
COR = Corgard
VF = ventricular fibrillation

* Unstable angina, not exercised
\# Abnormal baseline, on Digoxin

have sufficient symptoms on adequate medical therapy to warrant surgery. They should have no contraindications for coronary artery bypass surgery and they should have objective evidence of myocardial ischemia (treadmill examination, Thallium 201 scintigraphy).

Ideally, the symptoms should be of relatively short duration, since such patients appear to be technically easier to dilate.[2] The lesion should be proximal, discrete, concentric and noncalcified. Coronary angioplasty is contraindicated when a major branch takes origin within the stenotic lesion and is at risk of occlusion; and when the patient refuses consideration of coronary artery bypass surgery. Relative contraindications include multivessel disease or left main stenosis, because such cases were associated with higher mortality in initial reports, and markedly impaired left ventricular function. Some investigators have broadened their criteria to include patients with multivessel disease.[14]

The true profile of the appropriate coronary angioplasty candidate remains to be defined. Currently, a very broad range of indications are being used in various centers, and it is only through controlled trials that the answer will emerge. As noted in a recent *New England Journal of Medicine* editorial, these trials are being planned.[5]

To illustrate the broad range of applications for which the procedure might be considered (but has by no means been proven efficacious), several cases from our initial series are presented below. Our success has been encouraging but must be viewed with caution until more experience is gained.

Case Presentations

Patient No. 1: A 56-year-old white man first had the onset of angina two months prior to angioplasty. Despite medical management he continued to have exertional chest pain. Catheterization revealed a 95% stenosis of the left anterior descending before the first septal perforator. His treadmill test (summarized in *Table 3*) revealed ST segment elevation and negative U waves with exercise. His typical angina developed at 4 minutes and 10 seconds of exercise. After successful angioplasty he had no pain or ECG abnormalities with repeat exercise testing. At three months postangioplasty he remains free of angina off all medication.

Patient No. 2: A 62-year-old white man with no prior cardiac history suffered an inferior myocardial infarction two months prior to angioplasty. Two months after the myocardial infarction he was readmitted to the hospital with unstable angina. Aggressive medical management with intravenous nitroglycerin was required to control his pain prior to catheterization. Coronary angiograms revealed a 95% stenosis of the right coronary artery distally. There were no lesions in the left main, the left anterior descending, or the left circumflex vessels themselves, but several diagonal branches of the left anterior descending and a marginal branch of the left circumflex were totally occluded proximally and could be seen to fill retrograde from the right coronary artery. The entire lateral wall was, thus, supplied by the stenotic right coronary artery. After successful dilatation of the right coronary artery, the patient was pain free while active on the ward and subsequently during his usual activity at home. His follow-up treadmill was limited by known claudication and the ST segment response was nondiagnostic because of an abnormal baseline and digitalis therapy. He had no pain at a heart rate of 73% of age predicted maximum.

Patient No. 3: A 50-year-old white man, previously healthy and extremely active physically including 7-8 miles of daily jogging, developed atypical chest pain and was found to have 10 mm of ST elevation on treadmill testing by his local physician. Electrocardiographic monitoring in the hospital revealed repeated episodes of asymptomatic ST segment elevation and short runs of ventricular tachycardia. Catheterization revealed an 80% lesion of the left anterior descending artery and a 50% lesion of the left circumflex artery. With ergonovine stimulation the patient developed coronary spasm in several areas of the left anterior descending artery and in a large diagonal branch. He was placed on nifedipine after which the ST segment and rhythm abnormalities during ambulatory monitoring disappeared. With repeat treadmill exercise testing (see *Table 3*) he walked for 16 minutes without chest pain but he had 2 mm of ST segment depression during the initial recovery period. At three minutes of the recovery period he developed ventricular fibrillation which was successfully cardioverted. After dilatation of the left anterior descending stenosis, he had a normal treadmill exercise test while still on nifedipine and he remains asymptomatic two months after the procedure.

TABLE 4

COMPLICATIONS: NHLBI REGISTRY

Myocardial Infarction	—	5%
Peripheral Vascular	—	1%
In Hospital Death	—	1%
—Single Vessel Dilatation	—	< 1%
—Multi-vessel Dilatation	—	2%
—No Prior CABG Surgery	—	1%
—Prior CABG Surgery	—	5%
Emergency Surgery Required	—	7%

TABLE 5

COMPLICATIONS: INDIANA UNIVERSITY MEDICAL CENTER

1.	Emergency Surgery Required	1/23
2.	Myocardial Infarction	1/23
3.	Femoral Thrombosis	1/23

TABLE 6

STANDARD CRITERIA FOR CORONARY ANGIOPLASTY CANDIDATES

1. Sufficient symptoms on maximal medical management to warrant surgical intervention
2. No contraindications for surgery
3. Objective evidence of ischemia (treadmill, Thallium, MUGA)
4. Short duration symptoms (ideally)
5. Lesion characteristics:
   - —proximal
   - —discrete
   - —concentric
   - —non-calcified
6. Contraindications
   - —not candidate for surgery
   - —left main coronary artery stenosis (multiple vessel disease)
   - —poor left ventricular function

Patient No. 4: A 37-year-old white man with an unremarkable past medical history suffered a myocardial infarction five months prior to angioplasty. He was found to have single vessel disease of the left anterior descending and underwent coronary bypass to this artery at another institution. He was asymptomatic until one week prior to angioplasty when he developed severe angina. His treadmill exercise test was positive, as noted in *Table 3*. Catheterization revealed a patent vein graft to the left anterior descending artery but a stenosis in the left anterior descending distal to the graft insertion. This lesion was successfully dilated through the vein graft. During repeat treadmill testing he had no angina, despite a significant increase in duration of exercise and heart rate response. He remains active and symptom free five months later without medication.

Patient No. 5: A 40-year-old white man suffered a high lateral wall myocardial infarction four years prior to angioplasty. He did well and had normal, annual treadmill exercise examinations thereafter. He then developed exertional chest pain with a markedly positive treadmill test two weeks prior to angioplasty. Catheterization revealed triple vessel coronary artery disease with an 85% stenosis of the left anterior descending, a 60% stenosis of the obtuse marginal branch, and two lesions in the right coronary artery, the most severe of which was 85%. The patient underwent successful dilatation of the left anterior descending lesion, and both lesions

of the right coronary artery. His treadmill response two days after angioplasty was dramatic in that he was able to walk for 12 minutes without chest pain or ECG abnormalities (*Table 3*). He remains active and pain free 2½ months later without any medication.

Discussion

The patients presented illustrate a variety of applications of coronary angioplasty. Patient No. 1 represented the optimal angioplasty candidate with both the clinical setting and the coronary lesion meeting the criteria set forth in *Table 6*. Patient No. 2 was likewise a good candidate except that his lesion was distal and he was clinically unstable at presentation. The subgroup of patients with unstable angina has been shown to benefit from angioplasty in a small study, and further data may confirm this.[15] If so it may offer effective therapeutic intervention in what is always a disquieting clinical situation.

Patient No. 3 illustrates another difficult clinical problem in which angioplasty may offer an important therapeutic alternative, that is, coronary vasospasm. We are by no means convinced of the long term therapeutic success in this case but at two months the patient remains symptom free on nifedipine. Theoretically, reduction of a fixed stenosis should improve perfusion during exertion and possibly during spontaneous vasospasm, especially if the dilatation process disrupts the arterial musculature locally at the site of the documented vasospasm.

Patient No. 4 raises the issue of the management of the post-bypass patient. Good results have been achieved with dilatation of vein bypass grafts,[16] but the rate of restenosis has been high. This is attributed to the fact that disease in a vein graft is a different pathologic process from atherosclerosis in the arterial system.[2] This patient presented with a classic picture of graft occlusion but proved to have progression of disease in the native circulation. If the basic process of angioplasty stands the test of time, we may have more to offer the post-bypass patients who have a recurrence of angina, either due to progression of disease in the native circulation or stenosis in the vein graft.

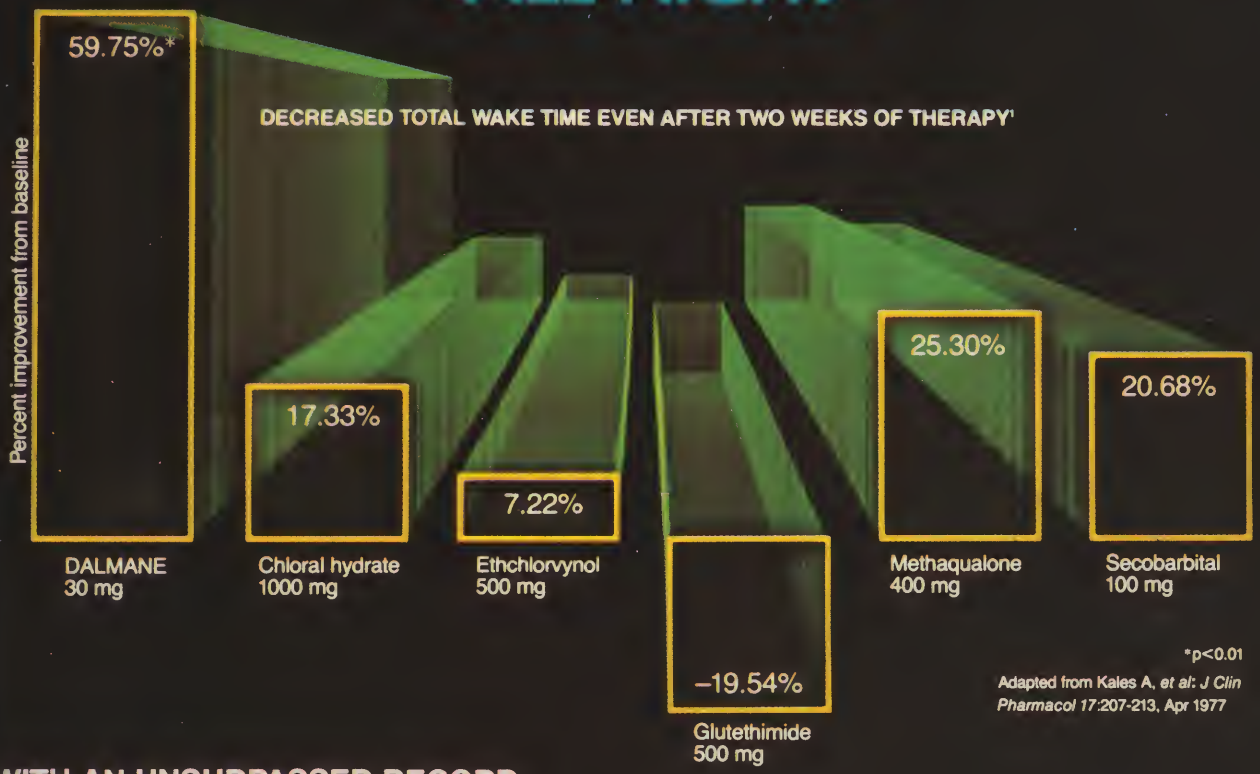
Patient No. 5 was undoubtedly the most controversial patient presented since he had triple vessel disease and multiple dilatations were performed. The rationale advising against angioplasty in patients with triple vessel disease centers on the fact that during balloon inflation and total occlusion of the involved vessel, collateral flow to other vessels may be compromised. Our rationale for attempting multiple dilatations in this man was based on his age and the widespread nature of his coronary artery disease. As a young man, his disease will undoubtedly progress in the future and we hoped to avoid the high risks of repeat coronary bypass surgery at a later date.

Our initial experience with coronary angioplasty has been encouraging. We have been greatly impressed by the symptomatic improvement and even more so by the functional improvement on treadmill exercise testing. This enthusiasm must be tempered by the absence of long term follow-up, and the need for critical evaluation of those data when they are available. In the meantime there is reason for further optimism as the technology related to the procedure is developing rapidly and many of the technical limitations are surmounted. It should be considered an investigational procedure that holds, at present, great promise.

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EFFECTIVE ALL NIGHT



*p<0.01

Adapted from Kales A, *et al*: *J Clin Pharmacol* 17:207-213, Apr 1977

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–which can cause transient insomnia in the elderly[10]

–which can require careful monitoring in cardiovascular patients[10]

–which have strong anticholinergic effects[10]

Antihistamines

–which are *not* reliable sleep-inducing agents[11]

–which may produce stimulation instead[11]

–which have anticholinergic effects[11]

Major tranquilizers

–whose side effects may be troublesome for nonpsychotic patients[12]

–where tolerance for sedation appears rapidly[12]

Dalmane does not cause significant worsening of sleep beyond baseline levels upon discontinuation.[4]

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

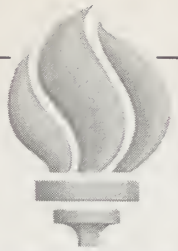
Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

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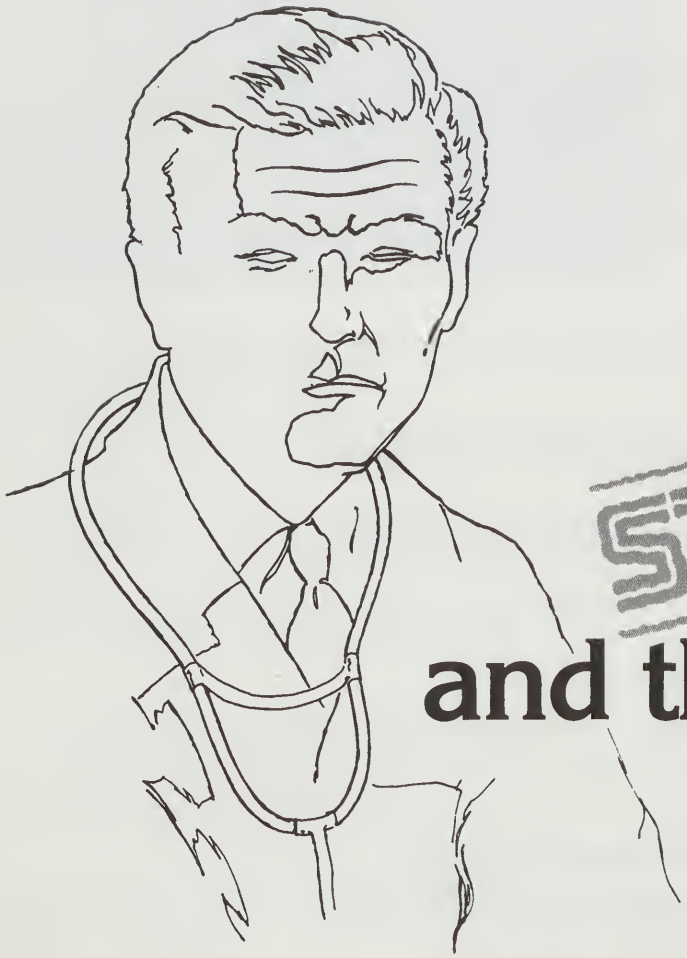
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STRESS and the Physician

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FOR NEARLY 2,000 years the medical student has become a physician by swearing to abide by the Oath of Hippocrates. This code of medical ethics, an altruistic summation of physicianhood, states that physicians are required to be loyal to the profession of medicine and just and generous to its members, to practice their art in uprightness and honor, and to hold themselves far aloof from wrongdoing, from corruption, and from tempting others to vice; they are to keep inviolably sacred whatever they see or hear of others' lives that is not fit to be spoken and to exercise their art solely for the cure of the patient.[1]

The oath on one hand is an explicit affirmation of attributes necessary for competence. On the other hand, it contains an implicit statement about incompetence. Incompetence may arise from a lack of knowledge or skills, maliciousness or the performance of unethical acts for personal rewards, or personal feelings, psychological needs, or irrational motivations. The oath's overt and covert demand requires that the physician, in the words of Robert Louis Stevenson, "stand above the common herd . . . the flower (such as it is) of our civilization."[2] It seems to be unaware of a basic duty that was biblically stated subsequently in the prescription to "Love thy neighbor as thyself"[3] or of the sentiments contained in the epitaph of an Athenian doctor, "These are the duties of a physician: 'First to heal his mind and give help to himself before giving it to anyone else.' "[4]

Role Strain is the term used to describe the conflict that can de-

velop within the physician as he or she strives to meet both the demands of the professional role and the need for personal gratification—a strain that can lead to disaster for physician, family, and patients. Role strain occurs when the physician believes that he or she must function at a maximum level of competence at all times—even when the social institutions needed to support the role performance are missing or inadequate.[5] Such a physician is unable to derive satisfaction from either realization of a job well done or acknowledgment of internal feelings of pleasure.

Appreciation of the complexities of the factors contributing to the physician's role strain have been a matter of research interest only during the past 20 years, although some awareness of these factors existed previously.[6] Most researchers have focused on tertiary interventions with physicians who are alcoholic, drug-addicted, or emotionally and mentally ill. Physicians who cope with anxiety and conflict in such self-destructive ways are, of course, hazards not only to themselves but also to their patients and other members of their families. Unfortunately, interventions seldom occur at a secondary level of prevention, when the physician is in a preliminary phase of becoming disabled and is overworking, increasing his or her consumption of alcohol or other drugs. And methods for primary prevention are rarely discussed.[7-20]

In the past, the public was willing to delegate responsibility for the maintenance of physician competence to the profession. This is no longer true. Increasingly, people are questioning how well the medical profession has met the trust placed in it and bringing pressure on the profession to ensure competence of its members through malpractice suits and legislation.



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The professionals' responses to the problem have included (1) enactment of hospital regulations and formation of committees to ensure quality patient care and to assist the disabled physician; (2) establishment of components in county and state medical societies that have the responsibility of evaluating impaired physicians, developing treatment plans, and monitoring an impaired physician's progress; and (3) endorsement of the state medical and licensing boards' ultimate control over licensing the physician's type of practice and use of drugs.

Perhaps the least satisfactory responses to the problem of competence have been those of other members of the physician's families. Separation, divorce, or attempts to seek solace in drugs are unfortunately commonplace.[8-18]

Origins of Stress

The origins of the physician's stress come from the past and the present, from external and internal factors. They include (1) society's and the profession's image of a good physician, (2) the special requirements of the profession, (3) the characteristics of the physician's personality, (4) characteristics of family background, and (5) characteristics of significant social relationships. While each will be discussed separately below, the division is somewhat arbitrary, since the interactions between stressors can be complex and unique. For example, an intern's relationship with his wife may deteriorate because he has become exhausted by being required to work 130 hours per week; another physician may have a poor marital relationship and attempt to escape by working 130 hours per week.

The physician's image. Most people's expectations of a doctor are influenced by two variables: their personal need for gratification as expressed through the doctor-patient relationship and societal ac-

ceptance of the rights and privileges of a professional person at the time the patient is being treated. People generally perceive physicians as persons who combine the traditional stereotype of the protective, nurturing, maternal role with the authoritarian, omnipotently wise paternal figure. If the physician needs his patients to have such an attitude for his own personal reasons (such as a reaction formation to a strong need for nurturance), the patients will be reinforced in thinking that their perceptions are correct.

In extreme cases studied . . . characteristics that can be a professional asset have become a contributor to physician impairment

The autonomy society grants to all professionals to be responsible to their own conscience is necessary for their work. The professional can work satisfactorily only if immune from ordinary social pressures and if free to innovate, to experiment, and to take risks without the usual social repercussions if there is failure. The ultimate justification for any physician's actions, in other words, is that the action was done to the best of his or her judgment. Colleagues may be consulted, but the decision is the physician's; if the physician errs, however, he probably will be defended by colleagues.

The special requirements of medicine. Our profession is rapidly changing. Students entering medical school often know very little about medicine as a profession. In one study, 13.2 percent of men and 6.7 percent of women first-year medical students had never discussed the career of being a physician with a doctor or worked in a health-care job.[22]

Some students have goals other than that of becoming a physician; for example, the goal of some simply is to get into medical school, while others are more interested in the status of being a doctor or the financial rewards than they are in treating patients. During medical school, the student rarely has long-term relationships with either patients or physicians who are in practice. The attending physicians attracted to academic medicine often are research-oriented rather than patient-oriented, posing a problem of models with which the student can identify. In addition, there are few women or members of ethnic minorities who can serve as physician role models.

New graduates often have difficulty obtaining enough knowledge of specialties to make an adequate assessment of the type of life and opportunities a given choice entails. Indeed, by the time the physician has completed the long period required for undergraduate and graduate education, the area to which one originally aspired may have changed. Graduates thus sometimes make a choice that is subsequently regretted, and some will eventually change to another area of medicine. Occasionally, a physician even wishes that he or she had not become a doctor.

The years of internship and residency provide the young physician with the first exposure to being solely responsible for patient management. This is the period usually most stressful for house officers, because of the amount of work required and the long hours. The first two months of the internship are particularly stressful; working more than 100 hours a week, making rounds seven days a week, and working 11 or more hours a day when not on call—these all are factors more often found in the histories of depressed residents than of those who are not depressed. It is no wonder that marital problems and suicidal ideation are often present.

Thus, overwork and accompanying fatigue are both stressors and symptoms of stress.[23] It should be emphasized, nevertheless, that hard work may be stimulated by curiosity and excitement; work that is interesting and meaningful is invigorating. In assessing the role a heavy work schedule plays in a physician's life, then, we need to know the place work occupies in the person's life and the reasons for the heavy schedule.

A particularly troublesome and frustrating physician responsibility that is increasing in magnitude concerns the management of chronically ill patients. Professional glamour often insulates one against the stress of caring for other seriously ill patients. But such glamour is not present in caring for the chronically ill, the senile, or the elderly. The great demands of these patients, their need for care and the physician's inability to cure them can create a therapeutic impasse.

In essence, the strain in the personal relationship between doctor and patient is caused by the difficulty one finds in establishing the appropriate professional distance between himself and the patient.

The physician's personality: symptoms of pathology. Most of the hard data on physicians' personalities come from studies of the least successful or disabled, and most of the information is about men. In extreme cases studied, the obsessive-compulsive characteristics that can be a professional asset have become a significant contributor to the

physician's impairment. Clearly identified in these physicians is basic insecurity, dependency, depressive tendencies, and vulnerability to stress. Often such a physician has a highly ambivalent attitude toward medicine—loving it yet clearly resenting its continuing demands because medicine as a profession is failing to meet his or her needs. The result is that the physician feels fatigued and depleted by the demands of the profession.

Vaillant and associates[24,25] followed a group of college students initially selected for their psychological soundness through their undergraduate, graduate, and professional lives as physicians. The men who had problems with drug abuse, alcoholism, marriage, and psychiatric illness were statistically more likely than their controls to show traits of dependency, pessimism, passivity, and self-doubt. Feelings of inferiority were relatively more common, and the impaired physicians tended, when under stress, to show hypochondriacal traits and to turn anger against themselves in the form of depression rather than to act it out in a form of behavior that was not maladaptive per se.

The personality most commonly cited as predisposing to drug addiction in male physicians is the obsessive-compulsive (passive-aggressive, narcissistic) dependent character structure. Borderline character structures, schizophrenic, and affective disorders are less common.[26-28] In a study of addicted physicians, however, Johnson and Connelly[28] found that the physician patient under 40 years of age was more apt to have a borderline or psychotic character structure (and be addicted to several drugs) than the older physician.

Thomas et al.[29,30] have made long-term studies of the psychological characteristics of medical students that are of predictive value in identifying physicians prone to mental illness or suicide. They found that physicians who committed suicide had, as medical students, rated themselves on several types of psychological tests significantly higher than nonsuicidal physicians in the areas of thoughtfulness, anger, hostility and depression, negativism, suspiciousness, verbal expansiveness, dependency, and impulsivity.[30]

Until the last decade, only 6 to 8 percent of physicians were women, which may explain the paucity of studies on impaired women physicians. From the available data, women doctors apparently are one-fourth as likely as men doctors to be alcohol or drug abusers[31] and very rarely have sexual intercourse with patients.[32] Tragically, most data about the self-destructive behavior of women physicians are found in the epidemiologic material about their suicides. Winokur, Pitts, and their colleagues have repeatedly examined the death notices of men and women physicians. Pitts and his colleagues' most recent report[33] has substantiated findings of earlier studies.[34,35] The crude death-by-suicide rate for women physicians is 40.7 per 100,000 deaths, as against an overall death-by-suicide rate of 11.4 per 100,000 among white women over age 25. The data thus show that women physicians between the ages of 25 and 55 are nearly four times more likely to kill themselves than most other women. (The death-by-suicide rate of women psychologists and women chemists, however, is similar to that of women psychiatrists.)

The crude death-by-suicide rate for men physicians is 38.1 per 100,000—similar to that of women physicians.[33] The majority of male physicians who commit suicide, however, kill themselves after reaching the age of 45 (67.7 percent), while the majority of women physicians do so before age 45 (58.6 percent).[35]

Researchers reporting these data have as their primary interest affective disorders. They believe that there is an unusually high prevalence of the depressive disorders among physicians, particularly among women physicians. Such a conclusion is based primarily on suicide data. The reports fail to take into account the personality characteristics, marital status, presence and number of children, and type and amount of involvement women physicians have in medicine, although these factors have been noted to be of crucial importance in other reports about women physicians.[36] Furthermore, the woman physician who is single and in her 30s is different from other women of the same age—including other women physicians. Marriage and children often mark a critical turning point in a woman's life. Their absence and a sense of loneliness and alienation can result in tragedy despite the professional competence of the woman physician and acclaim given her.

The physician's basic personality characteristics, consequently, are central in determining how he or she will adapt to a medical career.

The impaired physicians tended, when under stress, . . . to turn anger against themselves in the form of depression

Physicians often tend in their lifestyle to rely on defense mechanisms of repression, rationalization, denial, and reaction formation in the suppression and displacement of emotions—although not always maladaptively. Many are virtually phobic about seeking help for themselves, whether their troubles are physical, professional, or psychological. Any request is seen as undermining the public's and the physician's own image of his self-sufficiency.

Family background. Disabled physicians often describe a childhood dominated by overprotective parents with rejecting attitudes. They recall that their parents often failed to acknowledge and support their childhood successes. Excessive and continued dependency on the mother well into adulthood is an important variable in persons in this group. The fathers of these disabled physicians are characterized as being neither steady nor companionable, neither understanding nor warm. The typical disabled physician, when a child, felt hurt by his father and detached from him. Mothers were often demanding, controlling, and seductive; if there was physical illness during childhood, it stimulated and supported the mother's behavior.

According to these studies, the male physician's risk for depression and suicide is increased if his parents were older than most parents at the time he was born and also if he was the youngest child in his family. A significant number of impaired physicians have come from families where there was a history of mental illness—particularly of the affective disorders, suicide, and alcoholism—before the future doctor entered medical school (in some cases, after he finished school but before residency or practice).[24-26,28,37-39]

Significant social relationships. The long work schedule, the erratic, unpredictable time spent at home, and the interruption of the family relationships by calls to the doctor are all extrinsic factors frequently noted as contributing to marital disturbance. Impotence and lack of sexual interest, increased irritability, decreased interest in the family, and loss of some ability to express joy or sorrow and of some ability to experience joy and sorrow are intrinsic factors affecting the physician's intimate relationships. The physician's inability to turn off his or her professional role and adjust to the human affectionate role of husband and father, wife and mother, are major sources of complaint of spouses and children.[7,9,16-20]

20 percent of the physicians' wives requiring psychiatric care had been given intravenous . . . injections by their husbands

The problem between husband and wife may be exacerbated by the fact that the couple was married while in college or medical school or even internship. In such cases the spouse, usually the wife, contributed solely or substantially to the support of the family. Subsequently, when the husband begins his practice, the wife finds she no longer has the supportive and important role she had before; there are no obvious vestiges of her husband's dependency on her at either an economic or an emotional level.

Symptoms of physician's wives fall largely into three categories: depression, reliance on drugs and alcohol, and somatization. The old joke about the physician's wife who says, "I have to be sick and call my husband's secretary to make an appointment in order to see him" is unfortunately too often true. Part of the problem stems from the physician's tendency to carry his physician role over into the home. In his work the physician's role is largely authoritarian. He or she listens, examines, decides and directs. But when this pattern is carried over into the home, the physician can avoid the need for sharing his feelings and entering the feelings of his spouse and children through discussion and communicating his uncertainties and humanness. The ambivalence in the relationship may be heightened if the doctor suppresses direct hostility toward his patient and either develops a similar pattern of repression of hostility at home or expresses the displaced feelings of hostility from his practice to his family.

The wife may foster her husband's being special and omnipotent and accept that, after his patients she comes first. She may even expect too much from him and believe that he is, indeed, omnipotent. A woman may marry a physician with both conscious and unconscious feelings that a doctor is someone who is strong, someone on whom people can depend and lean. She finds out only later that, while her husband permits dependency on the part of his patients, he has no time for or interest in a dependent wife. This can be especially true of the doctor who has the reputation of being willing to answer calls anywhere at any time. Lewis[17] found that 20 percent of the physicians' wives requiring psychiatric care had been given intravenous or intramuscular injections of medication by their husbands. The reasons why the husbands did so varied from feelings of guilt for not fulfilling their role as a marital partner

to passivity as they succumbed to the demands of a domineering wife seeking medication.

For some physicians, the pattern of being constantly busy is an attempt to avoid sexuality; for some, the intimacy of sexual intercourse is frightening. They minimize their exposure to this fear by working long hours. The person's need for intimacy and his ineptness in forming psychologically close social relationships can combine with his fear of closeness to stimulate the male physician's involvement in extramarital affairs. In such relationships the physician-patient or dominant-submissive relationship reinforces the physician's waning sense of power, importance, and physical attractiveness.

Marital distress and divorce rates are also affected by the geographic location of the medical practice and the sex and ethnicity of the physician. Rural physicians have fewer colleagues with whom they might discuss clinical problems than do nonrural doctors and therefore are particularly vulnerable to societal perceptions of parental omnipotence. Blacks' divorce rates may be related to the special strains of social mobility, with black doctors being more upwardly mobile than their spouses. For women and men, the two-profession marriage is generally difficult. If the husband has a conventional concept of marriage, he will be disappointed over the discrepancy between the expected and the actual family role of his doctor-wife. If the wife is a physician, she may experience profound and rapid economic and psychological growth as she moves into practice or academia. This may transform her expectations and needs in marriage.

The inherent dependency of childhood probably makes the physician's child even more susceptible than usual to the pathology of the parents' marriage and to the physician-parent-and-child relationship. Adolescence can be a time of great rebellion, with behavior that is simultaneously an embarrassment to the family, a caricature of the parents' behavior, and an expression of unfulfilled parental wishes. For example, the police catch a 16-year-old physician's son with his 14-year-old girlfriend. They have been speeding in his father's expensive car and have marijuana in their possession. The boy knows that his father takes meperidine and is having an extramarital affair. Or, in a variation of the same scene, the father is a self-aggrandizing leader with a zealot's morality. In either instance the son sees his father's reputation of community leadership as hypocrisy.

The reason for the behavior of this physician's child can be determined, of course, only after a careful examination, since everyone—including the child—could be engaged in family subterfuge. The boy's distressing behavior is both a relief from tension and a cause of tension.

Insofar as his family is concerned, then, the physician's professional role provides an unusual opportunity to dodge marital and family problems. That professional role can be both a shield and a weapon in marital and parenting conflicts.

TABLE 1

MALADAPTIVE BEHAVIORS THAT MAY BE A SIGN OF PHYSICIAN IMPAIRMENT

Working hours become irregular and inefficient.
Sleeping and eating habits become poor and irregular.
The physician withdraws from family responsibilities.
The physician begins to have unaccustomed difficulties in diagnosis and management of patients.
The physician is afraid to refer patients, for fear of losing prestige or that the underlying reasons for his inadequate functioning may be discovered.
Hospital rounds begin to be made at unusual hours or on a schedule different from colleagues'.
Rounds are made less frequently.
Attendance is erratic or infrequent at medical-society and hospital meetings.
The physician modifies his type of practice so that he can see more patients in the office and fewer in the hospital.

Symptoms of Stress and Their Management

Overwork is a mechanism of retreat from overwhelming personal and professional conflicts. The physician continues to work either at his usual level of hours or for longer hours when good sense and sound judgment indicate otherwise. Alcoholism, drug abuse, depression, and sexual intimacy with patients are the most common maladaptive methods for coping with the defensive overwork-and-fatigue syndrome. Thus, the symptoms that will bring the physician eventually to the attention of his colleagues and patients are a second line of defense against personal conflicts.

The secondary coping mechanisms of alcoholism, drug abuse, and depression may have similar behavioral expressions. The earliest signs of these maladaptive behaviors are shown in *Table 1*. Note that many of the signs increase social isolation. It may be the office nurse who will be the first—and perhaps

the only—person to suspect the physician's problem. The physician will attempt to deceive others (as well as himself) as long as he can and, unfortunately, will be encouraged in this by the behavior of both his patients and his colleagues.[7,8,26,39]

Patients deny the recognition of the physician's humanness and excuse behavior or change to another physician. They generally are loath to report any behavior that is disabling. Colleagues usually take an overly generous attitude in the care with which they investigate the impaired physician. This hippocratic sensitivity, however, may be a mask for an inability to address questions of overidentification with the other physician, self-protection from counteraccusations, and self-protection from questioning one's own behavior.

In addition, many physicians fear that disclosure of a colleague's problem would set up a friend-foe polarization, with the reporting person in the role of an antagonist whose loyalty to the profession is questionable.

What should be done for the disabled physician? While specific details will vary with the impairment, it is crucial that the physician be confronted by his colleagues and told that the impairment is known and that his colleagues will help in obtaining treatment and rehabilitation. Specifically, the impaired physician should be reported to the local medical society by anyone who has evidence of a disability. The allegations made must be verified as discreetly as possible by persons who know the physician. The medical society should then send the impaired physician a letter, apprising him of the evaluation made and of the treatment opportunities that exist.

Usually it is best for the impaired physician to be confronted directly by two or more members of the medical society—preferably members who are not known to him. The evidence should be presented in a supportive, nonjudgmental manner. If a physician who has recovered from the same problem is a member of the team, it will reinforce the view that his peers are friends and that there is hope for recovery. Removal of a physician's license is a serious and usually final step, since the license to practice is the legal and visible sign of the physician's identity.[8-15]

The drug-abusing physician usually is discovered accidentally, following a routine check by a pharmaceutical inspector

Special Characteristics of Various Impairments

Drug addiction, alcoholism, psychiatric illness, and erotic behavior are the types of impairment most often encountered in physicians. Each has distinctive characteristics.

Drug addiction. Incidence of drug addiction in physicians is high—an estimated 1 case per 100 physicians, as against 1 per 3,000 in the general population.[8,13] The physician's ready access to drugs makes his profession an occupational hazard insofar as substance abuse is concerned.

The physician who becomes addicted to drugs differs in many ways from most street addicts. Typically, the street addict is unmarried, a member of a minority group, and young.[15] The addicted physician, on the other hand, is likely to be married, is not a member of a minority group, and started using drugs at about the age most street addicts burn out.

Physician addicts usually use drugs in a different way from street addicts' use. The former typically use meperidine in pure form, seldom overdose, and find detoxification difficult. The latter use diluted drugs, often overdose, and find detoxification less difficult. The drug-abusing physician usually is discovered accidentally, following a routine check by a pharmaceutical inspector. The street addict usually is arrested while attempting to purchase drugs or with drugs in his possession. The addicted physician almost never associates with other addicts; the street addict has his addict buddies. The physician is rarely introduced to the use of drugs by his peers; the street addict frequently is. The physician has no insight into his use of drugs; the street addict has a very wry insight. The physician's prognosis for cure is good, the street addict's poor.

Pathologic personality characteristics frequently found in drug-addicted physicians include a negative attitude toward being a physician, a passive personality, some feelings of omnipotence, depression, and a tendency toward hypochondriasis.[24-28,40]

An important key to the typical pattern of addiction is some precipitating factor superimposed on a physician with a personality disorganization. Self-administration of narcotics by physicians usually begins for one of three reasons:

1. Chronic illness and pain; the physician seeks relief so that he can continue practice without interruption and self-administers a drug.

2. A tragic life event—usually a death in the family.

3. Shared addiction with a spouse who has a chronic painful illness.

In most cases the physician is male and has been the provider of narcotics for his wife as well as the primary provider of her medical care. Infrequent though it is, it is important to determine if there is addiction in other members of the family once it is learned that a physician is addicted.[26,40]

Overwork and fatigue are often mentioned in the literature about drug-abusing physicians. It is questionable, however, whether these are dominant findings or secondary symptoms or whether drug-abusing physicians' workloads are greater than other physicians. The physician-addict's (and the medical-students addict's) problem is accentuated not only by his easy access to drugs but also by his own attitude toward his ability to discipline himself; hence his belief that once he starts using drugs he will be able to stop at any time.[26-28,40]

Meperidine (Demerol) is the narcotic most frequently abused by physicians, followed by morphine, which until a few years ago was the drug most often self-administered by physicians. It may be that the initial introduction of meperidine as a nonaddictive narcotic has spurred its use by physicians. Today we realize that meperidine is a major addictive agent; it acts more rapidly and produces a greater elation, with a shorter duration of effect, than such other drugs as amphetamines and barbiturates, which have one-fourth to one-fifth the popularity of meperidine.

Many reports indicate that substance-abusing physicians use alcohol in combination with drugs. Thus, the impaired physician may go from alcoholism to drug addiction and back again.[4,15,26,40]

Once it has been recognized that the physician is addicted to drugs, the plan outlined above should be followed. In addition, the seriousness of the problem requires that the physician stop practice and receive inpatient care in a hospital where professionals are available who are expert in treating the problem.

Some states require prompt suspension of addicted physicians' hospital privileges and a report to the state board of medicine. These are radical steps but are necessitated, however, by the fact that although most addictive physicians will insist they can stop their habit at will, they are unable to do so. In addition, there are often underlying emotional and mental disturbances in these physicians. Suicide as an alternative to addiction often presents itself to these persons.[10,15,26-28,40]

Treatment is a matter of years. Prognosis is best when the physician-addict surrenders his narcotic license and is placed on probationary status. Practice should be discontinued until the appropriate individuals and organizations agree that the patient can return to work.

In order to resume practice, the physician must appear before the psychiatric advisory committee of the local medical society. The physician must agree to seek psychiatric and medical care—care of his own choosing but selected with the approval of the psychiatric advisory committee. Ideally, the physician's progress will be monitored through regular interviews by members of the society's psychiatric or mental-health committee, by reports from the treating psychiatrist, and by mandatory periodic appearances before the medical board. If the physician's psychiatrist, the medical society board or its psychiatric advisory committee, and the state board of medicine all agree that the doctor is ready to return to practice, permission can be given for a limited work schedule, often in a protected environment. Studies indicate that constant surveillance and repeated interviews can result in a 72 percent cure rate; that is, in that percentage of cases the physician is able to return to full practice responsibilities.[10,17,40]

Alcoholism. Abuse of alcohol is often difficult to detect, since the line between drinking as a social attribute and excessive drinking is often blurred. Definition, detection, and treatment of alcoholic physicians are, nevertheless, crucial for the personal and professional lives of the 23,000 U.S. physicians who are alcoholics—one third to one-half of whom are estimated to be mixing drug abuse with alcohol abuse.[4,8,15]

Alcoholism is an illness characterized by a preoccupation with alcohol and loss of control over its consumption

The American Medical Association's *Manual on Alcoholism*[44] offers this definition:

> *Alcoholism is an illness characterized by preoccupation* with alcohol and loss of control over its consumption, such as to usually lead to intoxication if drinking is begun; by chronicity; by progression; and by a tendency toward relapse. It is particularly associated with physical disability and impaired emotional, occupational, and/or social adjustments as a direct consequence of persistent and excessive use of *alcohol.*

Loss of control, the key factor in the definition, may distinguish alcoholism from excessive drinking. Nevertheless, the proper practice of medicine will be impaired in either situation. Alcoholism is usually

preceded by years of increasingly excessive use of alcohol.[6,15,44]

Detection of the alcoholic may be difficult, since excessive use has an insidious onset. The alcoholic physician's problem often begins during social relationships with fellow physicians; many times it begins years earlier; during midadolescence in a home where both parents are alcoholics.

The prodromal phase of alcoholism includes amnesia or blackouts, which can occur as a result of only moderate alcohol intake; surrepititious drinking, often associated with studying; hastily imbibing a few drinks, with the subsequent early onset of intoxication; a preoccupation with alcohol, such as concern over having an adequate supply available; and an avoidance of verbal references to alcohol, as in a joke.

Loss of control signals the onset of the critical phase. Someone notes that the physician has alcohol on his breath while in the hospital or is behaving in a way that indicates he is having trouble walking, speaking, or thinking. The alcoholic physician quickly learns to camouflage these behaviors by avoiding colleagues, making a joke, strenuously attempting to maintain control, or making an intellectual excuse, such as blaming fatigue or attributing the problem to convalescence from an illness.

As the disease progresses, various changes in personality and work habits become evident. The physician becomes increasingly isolated and withdrawn from friends. Monday-morning absences, inability to get to the office because of being sick or not feeling very well, leaving early, and canceling appointments become typical. The family and office personnel may assist in the coverups or excuses out of loyalty, fear of exposure, or fear of retaliation. Colleagues and patients may note the irregularly kept hours, increasing inefficiency, forgetfulness, broken promises, and deterioration in judgment and writing. The colleagues may be asked to cover up for the alcoholic physician by assuming his calls and accepting his reasons.[8,15]

Unless hospitals have a special program for alcoholics, hospitalization may be of little benefit

The alcoholic physician rarely seeks help before the problem becomes critical; typically, both the alcoholic's colleagues and his patients will "handle" the problem by finding another doctor for consultation or assistance.

When the alcoholic physician does look for assistance, he may consult a psychiatrist. When consulted, the psychiatrist must bear in mind that most alcoholics also have physical pathology that requires attention. Even though there are physical problems, the evidence indicates that most general physicians do not like to cope with alcoholic physicians as patients. The reason, in addition to the reaction that could be expected from a personal colleague, is that most such physicians are unable to anticipate and tolerate the alcoholic patients' relapses during treatment—for few alcoholics achieve permanent abstinence right from the start of their treatment.[11-14,45]

As with the drug-addicted physician, one should investigate to see if the physician's spouse is also addicted to alcohol. The spouse, in any case, can be an important adjunct, as Alcoholics Anonymous has well recognized, in achieving the physician's recovery and maintenance of sobriety.

Occasionally, an alcoholic physician will not seek treatment on his own initiative but must undergo involuntary commitment to a state or private mental hospital. The diagnoses of alcoholism and drug abuse in involuntarily hospitalized physicians are usually made on one-third to one-half of all such physicians. It is important to emphasize that unless hospitals have a special program for alcoholics, which ideally should include involvement in Alcoholics Anonymous, hospitalization may be of little benefit. Adequate posthospital treatment on a continuing level is absolutely necessary.

Any program of physician rehabilitation should involve the psychiatric committee of the state board of medicine. There is a requirement in most states that alcoholic physicians be reported to the state licensing board, although this obviously is not always done. These legal requirements, where they exist, have become known to many physicians' as "tattletale laws." Such a title conveys many physicians' feelings. The medical profession's response is one of generosity to one's colleagues, and most physicians will make an effort to protect an impaired colleague by preventing the fact of his alcoholism from becoming public knowledge, while attempting to take steps to protect the public from an alcoholic doctor. The infrequent use of laws requiring that alcoholic physicians be reported to state licensing boards is evidenced by the statistics in the few states where they are available; state boards of medical examiners discipline between 2.0 and 3.5 per-

cent of the physicians in those states for alcoholism.[17] Obviously, the incidence of alcoholism among physicians is much higher, so it might be concluded that only one out of five alcoholic physicians is perceived by his colleagues to be sufficiently impaired to require this level of intervention.

Prognosis for complete recovery of the alcoholic physician is difficult to make. Outcome studies are not easy to conduct because of the complexity of the issue: There may be underlying personality problems, for example, or schizophrenia, or manic-depressive illness, or other abuses of substance of which alcoholism is only one manifestation. Most reports indicate a 60 percent good to excellent recovery and a 20 percent fair recovery.[40,44] Probably the main reason why it is difficult to get accurate statistics is that a physician may be sober for a long time, only to suffer a relapse after a number of years.

Psychiatric illness. No accurate statistics on psychiatric diagnoses in physicians exist. Varying methods of reporting, lack of controls, and uncertainty about the actual incidence of such disorders in the general population combine to make such statistics all but unobtainable.

Physicians, obviously, are more likely to seek private than public medical care for a psychiatric illness and to want outpatient rather than inpatient treatment.[39,45] Several studies made during the past 20 years[4,39,45-48] indicate that at least 1 percent of all admissions to private psychiatric facilities are of physicians. The major diagnoses are affective disorders—particularly depression—with reports ranging between 15 and 40 percent of all physician psychiatric admissions; neuroses, ranging between 14 and 52 percent of admissions; schizophrenia, with reports ranging from 5 to 9 percent (an exception is that of Small,[46] whose study of 100 impaired physicians found 42 with schizophrenia); personality disorders, with reports ranging from 3 to 13 percent; and organic psychosis, with reports ranging from 5 to 9 percent (*Table 2*).

TABLE 2

DIAGNOSES OF PHYSICIANS HOSPITALIZED FOR MENTAL DISORDERS IN PRIVATE PSYCHIATRIC INSTITUTIONS

Diagnosis	% of all physicians hospitalized for mental disorders
Affective disorders	15-50
Neurosis	14-42
Personality disorders	3-13
Schizophrenia	5-9*
Organic psychosis	5-9

Sources: Duffy, J. C.,[4] Pearson, M. M., and Strecker, E. A.,[39] Jones, R. E.,[45] Small, I. F., et al.,[46] Vincent, M. O., et al.,[47] a Brook, M. F., et al.[48]
*See qualification in text.

Data from state medical boards regarding mentally ill physicians are negligible; it is clear that most state boards never learn of the psychiatric or other disabling problems affecting hundreds of physicians. In many states, means are available, through the state medical societies, for physicians to reach out and assist colleagues without involving the state boards; such treatments are usually confidential and unrecorded. Several states recently have enacted statutes requiring a physician under psychiatric care to be reported to the state board. These laws are relatively new, and their effectiveness is still unknown.[9,15]

The results of treatment of mentally ill doctors are difficult to evaluate. Some reports do not address this aspect, and others do so by various means, such as questionnaires, status of license to practice, type of hospital discharge, etc. The review of 40 physician patients (38 men, two women) by Small et al.[46] showed that 12.5 percent were discharged against medical advice, as against 1.3 percent of such discharges for psychiatric patients generally. The follow-up of these physicians ranged from 2.5 to 13 years, averaging 9.3 years. Five of the physicians committed suicide (12.5 percent), three died from other causes, seven had repeated hospital admissions, and eight were no longer practicing medicine, for unstated reasons. Fifty-seven percent, however, were actively practicing at the time of follow-up. Similar outcome data have been reported by other researchers.

At least 100 physicians kill themselves each year.[5] Suicide can provide an escape from the symptoms of depression and schizophrenia, just as it has served as an escape for the alcoholic or drug addict. In fact, the suicidal physician may be symptomatic in a number of areas.*

A contested theory about physicians is that the majority have a primary affective disorder. This concept has been particularly applied to the data about women physicians by Pitts et al.[33] Their reasoning is that the morbidity risk for suicide among women with primary affective disorders can be applied to women physicians, since women physicians have a high suicide rate. From these data, they

*See "Life Change and Suicidal Behavior," by Herbert S. Ripley, M.D., and Theodore L. Dorpat, M.D., *Psychiatr. Ann.* 11 (1981), 219-226.

calculated that 65 percent of American women physicians have affective disorders. Such teleologic thinking has no basis in the research findings of the personality characteristics of women physicians or in the rate of hospitalization and diagnosis of women physicians who are psychiatric inpatients.

The depression-evoking effects of residency training have been the subject of several studies in men. In Valko and Clayton's study,[23] 30 percent of the male residents were depressed and 18 percent had suicidal thoughts and a plan for committing suicide. Studies are now under way in a number of medical schools regarding the conflicts—and their resolution—in the lives of men and women as they learn to combine a professional and personal life. Studies made thus far indicate that women medical students resolve their anxieties, confusion about identity, and depression by ventilating to peers within the support groups outside medical school and by searching for female role models.[26,49]

Erotic contact with patients. While the Hippocratic Oath states unequivocally that seduction of patients is forbidden, and contemporary legal statutes protect the patient, we live in an age when many people no longer are content with or accept absolutes. Situational ethics—the belief that appropriate behavior is dependent on the situation—and the related new morality are openly fashionable. Thus, it is not surprising that Kardener et al.[50] recently found that 19 percent of 450 physicians sampled believed physicians' erotic contact with some patients could be beneficial in treatment. In a previous study of first-year medical students,[51] Kardener and his associates found that 25 percent believed intimacy with patients might be acceptable if there was a genuineness of feeling between the two parties.

Propinquity appears to be a factor when there is sexual intercourse between physician and patient. Kardener found that the physicians with the greatest frequency of sexual contact with patients were, in order, those in general practice, obstetricians and gynecologists, and internists. Of the physicians surveyed, between 5 and 13 percent engaged in some erotic behavior with patients, and 5 to 7.2 percent had sexual intercourse with them.

The male physicians engaging most often in erotic behavior with patients were thus those with not only an opportunity but also often an obligation to see and touch women patients. Incidence of actual intercourse varied with the physicians' use of erotic behaviors—hugging and kissing most often, occasionally manual or oral stimulation of the patient's genitals, rarely stimulation of the physician's genitals, and mutual genital stimulation almost never.

Physicians who do not engage in erotic contact with patients report in these studies that it is never of benefit; to the contrary, they believe it is destructive of the doctor-patient relationship, impairs the physician's objectivity, and can actually harm many patients.* Physicians who do engage in erotic behavior with patients report that it helps their patients improve sexual functioning, reduces or eliminates sexual maladjustment, and helps many patients—especially depressed and middle-aged women—recognize their sexual status.[50,51] Follow-up psychotherapy with women who have had coitus with their physicians does not support the opinions of the erotically involved physicians.[52]

As noted previously, women physicians seldom engage in coitus with patients, judging from the studies that have been made.[32] Among the reasons may be that the majority of women physicians are pediatricians, child psychiatrists, and internists with patients who are mainly women. In addition, women generally have had fewer sexual contacts outside marriage than men—at least until the past decade. Continued research in this area is needed, since women and men are both interested in and being educationally supported to practice family medicine—a high-risk specialty insofar as sexual intimacy is concerned. Open homosexuality is also increasing in our society. Its effect on the practice of medicine remains to be determined.

Finally, except for a few clinical reports, there has been no study of the relationship between stressful experiences and sexual intimacy between a physician and patient.

Conclusion

Physicians are members of a society in which alcohol, other drugs, and erotic behavior are all used as social behaviors and as means of coping with stress. The physician's role, society's acknowledgment of his special characteristics, the great demands—and resulting stresses—placed on many physicians by their practice, all increase the vulnerability to becoming an impaired physician.

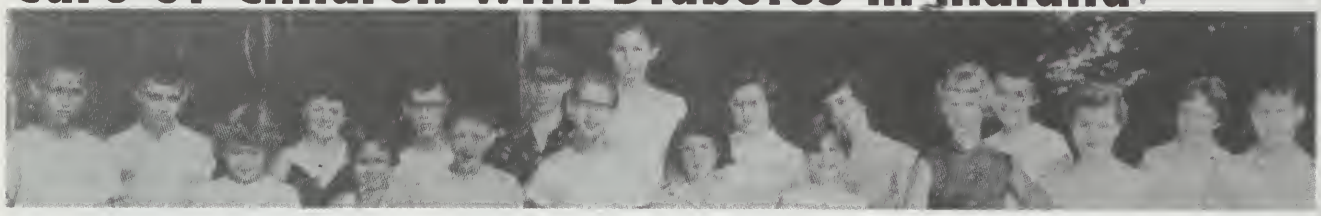
Colleagues in the medical profession have an obligation not only to help physicians they recognize to be impaired but also to take steps to report alcoholic, drug-addicted, or mentally impaired physicians to local medical societies. The individual can reduce his own chances of becoming impaired by being alert to his or her at-risk status as a physician, avoiding substance abuse or self-dosage of addictive drugs, and seeking professional help when plagued by symptoms of a psychiatric or medical illness.

*See "Boundary Violations Between Patient and Therapist," by Michael H. Stone, M.D., *Psychiatr. Ann.* 6(1976), 670-677.

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Care of Children with Diabetes in Indiana



As Indicated by Statistics Gathered at Indiana's Camp for Children with Diabetes



FIGURE 1: Children attending the first session of Indiana's Camp for Children with Diabetes—1955.

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BARBARA ALLES, R.N.
BARBARA RUSSELL, R.N.

Purpose

On two previous occasions (May 1956,[1] April 1972[2]) THE JOURNAL has reported on the medical management of Indiana's Camp for Children with Diabetes. Although the camp provides many functions, it serves as a "barometer" for the state of the art of care provided to children with diabetes throughout Indiana. Through the use of camp records and the previous reports, changes in philosophy of management through the 25 years that the camp has been in operation can be documented. Data from this particular year were selected because 1980 marked the silver anniversary of the camp's operation.

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History

Camps specifically for children with diabetes actually antedated the discovery of insulin. The original camps were established to provide parents with a respite from watching the slowly progressive death of their children. Since the life expectancy of children with diabetes averaged only 18 months prior to the discovery of insulin, the progressive nature of the disease resulted in a physical condition that usually prohibited rigorous activity. General dietary treatments were attempted but ketosis remained universal, making a feeling of "well-being" non-existent.

With the discovery of insulin in 1922, a major change in diabetic management occurred. There finally was a means to interrupt the progressive course to death. Soon multiple doses of regular insulin gave way to the use of longer acting insulins such as PZI and NPH.

At this point in the more modern history of diabetes, Indiana became involved in diabetes camping. As reported by Sargent, Symon, and Hall,[1] the camp opened June 26, 1955, in the facilities of Camp Riley in Bradford Woods, Martinsville, Indiana. Their article reported on the medical management of the 29 children *(Figure 1)* who attended the camp that year. In the early years of the camp operation, all medical and dietary management was centralized. The diet was a weighed system done entirely by the dietary staff, while insulin was measured and administered by the medical staff. Urine tests were done by the cumbersome Benedict's test and blood sugars by the Folin-Wu method.[3] Both methods were done in the central lab.

The major thrust of the camp effort was to provide medical care rather than an orientation to self care. Unfortunately, the passive role in diabetes care played by the child at camp only reflected the general philosophy of home care throughout the state. Most pre-teen children were expected to participate very little in their own care, with the burden of care remaining on the parents.

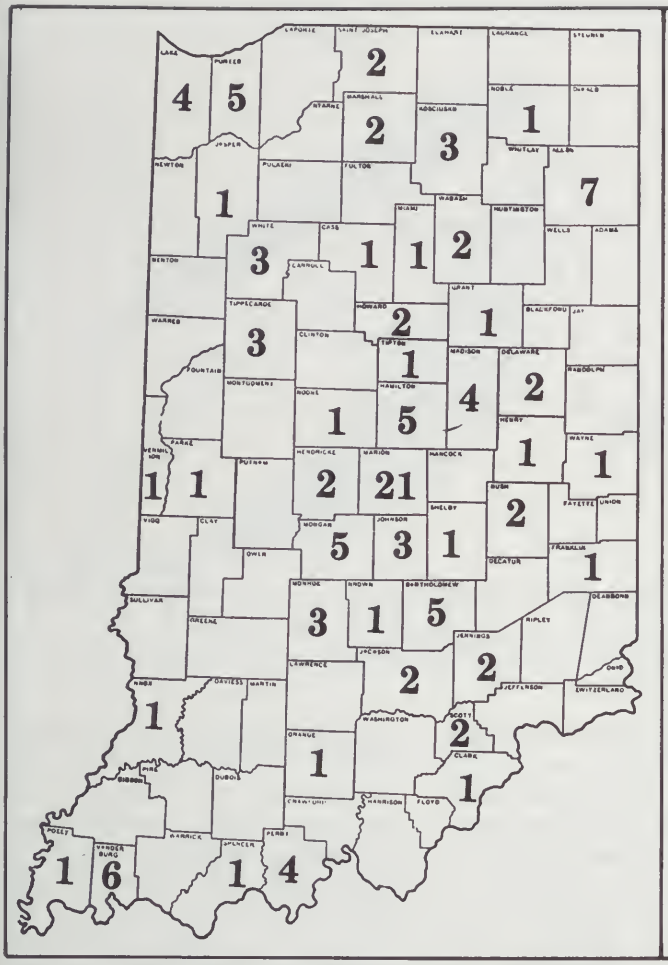


FIGURE 2: Home counties of children attending camp—1980.

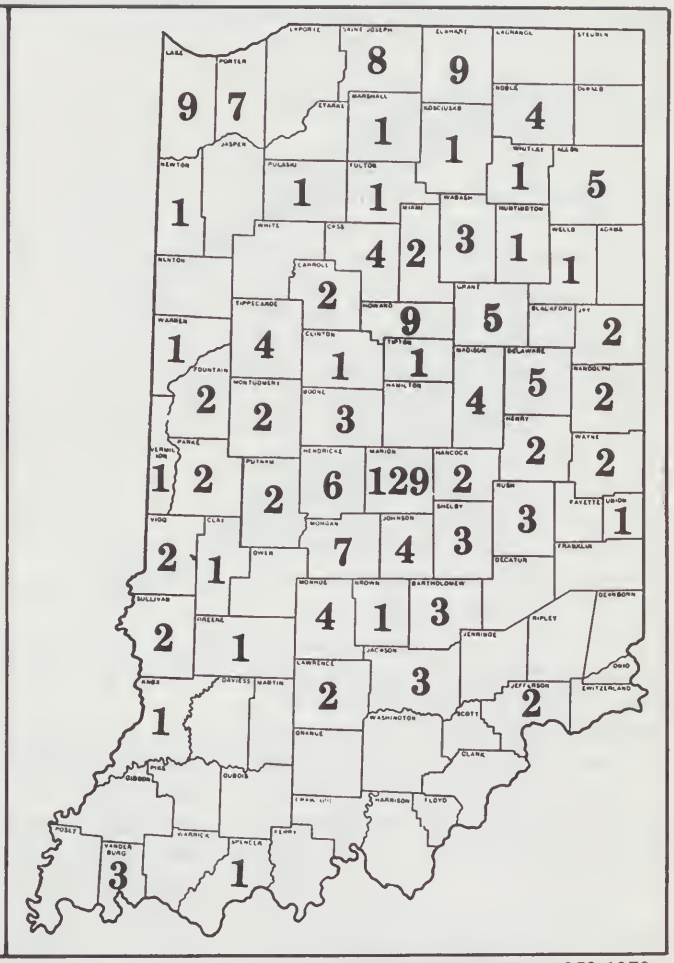


FIGURE 3: Home counties of children attending camp—1959-1970.

Present

Reflecting the overall change in the philosophy of the medical management of children with diabetes, medical care at camp is now decentralized to individual living areas. This permits the children to learn self care through doing. Children are asked to draw and administer their own insulin, to do their own urine and blood tests and to help with the measurement of their diet at the dining room table. All such procedures are closely supervised. The teenagers are asked to give their input in the determination of their insulin dosage.

Admission data verify that increasing numbers of children are assuming more responsibility for their own care. Of the 122 children attending camp, 84 drew their own insulin up and gave it to themselves; however, 111 children were not rotating their injections to the suggested six sites.

Characterization of the Group

Children attending the camp and thereby included in the sample were 8 to 16 years old. There were 122 included in the sample. The sex distribution was nearly equal with 67 girls and 55 boys. Although the home counties of the group attending camp cluster about a central north-south line *(Figure 2),* they were referred to the camp by fewer centralized physicians than the population for 1959 to 1970 *(Figure 3).*

Prior to 1970, it was not common for the children to be cared for by local pediatricians or family physicians. Referral data now indicate a trend from the centralized (Marion County) internists or diabetologist to the local physician. Forty-three primary physicians were listed as caring for the 122 children attending camp. Because of the new referral distribution, the camper population now reflects the current methods and levels of care provided throughout the entire state.

Medical Statistics

Data were gathered throughout

the two weeks the children were attending camp. It is felt that many of the medical statistics reflect care at home more than the philosophy of the camp medical team.

1. *Age of Onset:* The distribution curve of the age of onset is shown in *Figure 4*. Statistics continue to show an acceleration of onset at the periods just prior to or during periods of rapid growth. Peak periods for diagnosis are ages 5, 9, and 10 for girls, ages 5 and 11 for boys. The decline in onset seen at age 13 in *Figure 4* may reflect that most young people have completed their maximum prepubertal growth by that age. However, the decline may partially be due to the fact that the majority of those attending camp are between ages 8 and 13.

2. *Growth and Development:* There has been concern through the years about the rate of growth in children with diabetes. Short stature has been reported as a complication of type I (insulin dependent) diabetes in children. Its most severe form is referred to as Mauriac's Syndrome.

The short stature of diabetics has always been attributed to poor control of the blood sugars. The original speculation as to the cause of Mauriac's Syndrome was the variation in blood sugar and intermittent ketosis caused by the use of regular insulin alone. With the development of longer acting insulin, many felt that short stature, particularly Mauriac's Syndrome, would cease to plague the child with diabetes. Short stature has, however, continued to be a problem, particularly in the child who is hyperglycemic at night.

There has been an overall improvement in growth, as noted in *Figures 5 and 6*. These charts illustrate that the majority of children attending camp fall within the normal range for their height. The only individuals significantly outside the normal range are four boys who were considerably *above* the 97th percentile. Weight gain is a significant problem for pre-adolescent and adolescent girls. Dietary consideration must be made to prevent excessive gains. Boys also tend to be above the 50th percentile but skin fold thickness indicates that most are at or near lean body mass.

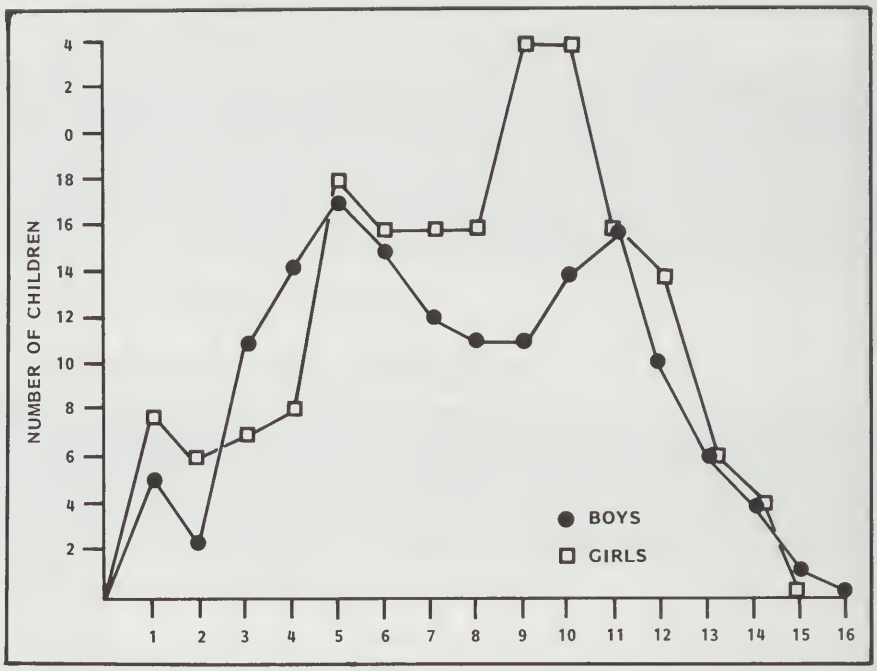


FIGURE 4: Age of onset.

3. *Levels of Control:* From 1955 to 1978, the only estimates of chronic home control that could be made were through the amount the insulin dose had to be changed to obtain control during camp, and/or if the child was noted to have short stature or some other complication. Poor control would be indicated by significant increases in the insulin dosage. For the last three years it has been possible to evaluate longer term control through the use of glycosylated hemoglobin. Through this determination an indirect estimate of blood sugar control over a three-month period can be made. The campers attending camp in 1980 had an average glycosylated hemoglobin of 13.3% (non-diabetic normals being 5.5 to 8.5) with a range of 6.1% to 17.3%.

Although most indications are that children attending camp are under better metabolic control, it appears that good overall control has not yet been achieved. The exact level of blood sugar required to elevate the glycosylated hemoglobin significantly remains to be determined. Evaluation of current control can best be quantitated through the use of blood sugars.

Because of the growing interest in home glucose monitoring by the patient, numerous blood sugar determinations by use of glucose-oxidase strips were made during camp. Many were done by the children themselves, under supervision. Blood sugars during one 24-hour period revealed an average mid-morning sugar of 189, mid-afternoon sugar of 208, and bed-time sugar of 187. All of these determinations were post prandial. These values indicate that a majority of the children fell into a fair to good level of control during the period of their stay at camp.

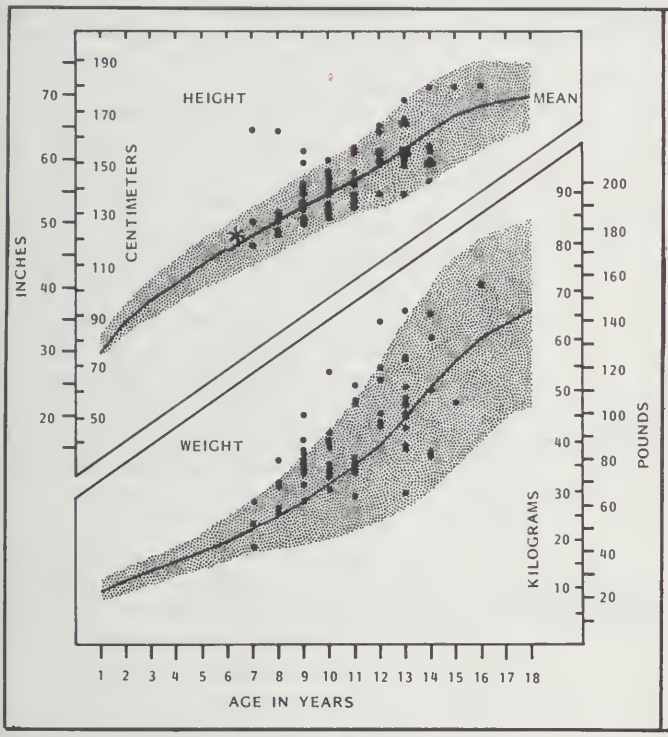


FIGURE 5: Physical development in boys.

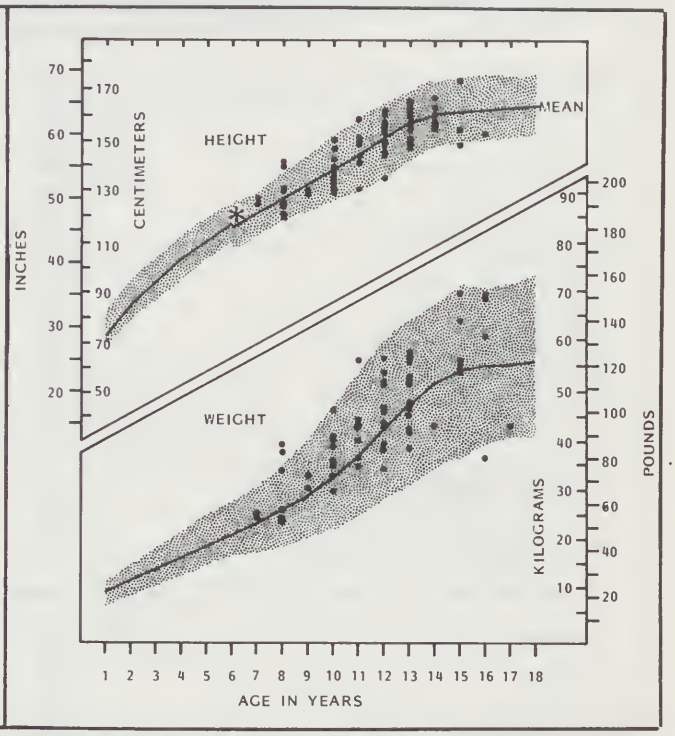


FIGURE 6: Physical development in girls.

Changes in insulin dosages were not significantly different from years past. Most of the reductions in insulin dosage seen at camp resulted from increased exercise inherent in the camp program. Changes due to exercise may have been greater this year because the camp dates fell immediately after the closing of school. In addition, the new, more purified insulins were introduced to the children during the camp session. As is indicated in the package inserts of the more highly purified insulins, some reduction in dosage is often seen in individuals when this change is made, particularly if there are significant levels of circulating insulin antibodies. Through comparison of previous years of data, it was found that a dosage change of 0.1 unit/kilogram/day or less could be attributed to the increased purity of insulin. Large reductions in dosage that were noted were felt to be due to over-insulinization prior to the child

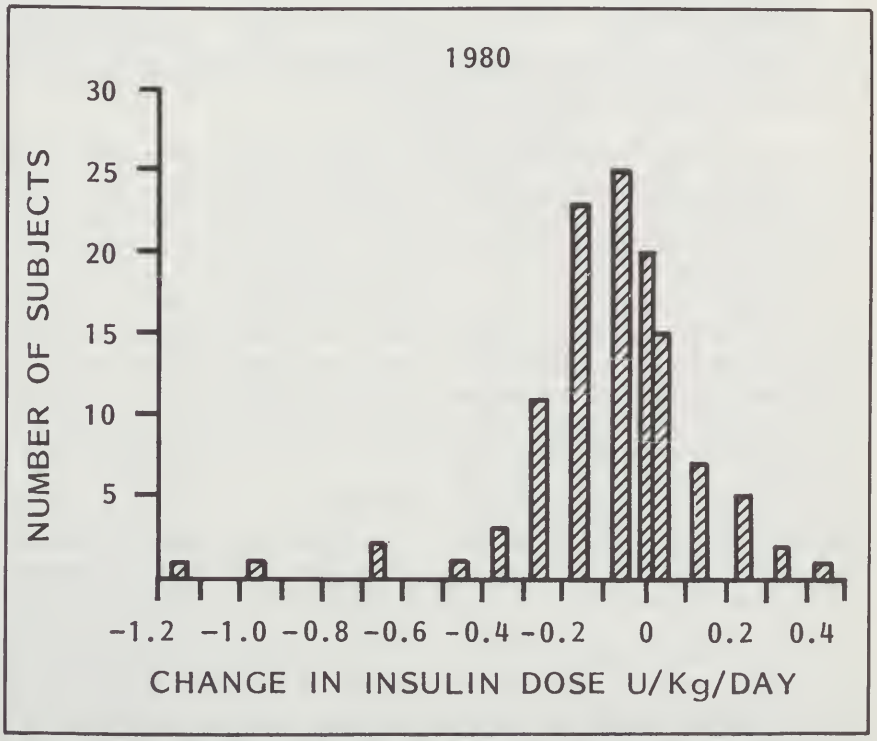


FIGURE 7: Total insulin dose change per kilogram per day necessary during two weeks of camp.

Insulin	1959-70	1980
Regular alone	0%	0%
Lente alone	13%	6%
N.P.H. alone	21%	5%
Semi-Lente alone	0.9%	0%
Globulin alone	0.6%	0%
UltraLente alone	0%	0%
P.Z.I. alone	0.6%	0%
Regular and Lente	10%	54%
Regular and N.P.H.	19%	34%
Regular and Ultra-Lente	2.8%	0%
Regular and P.Z.I.	24.8%	0%
Semi-Lente and Lente	5.7%	1%
Lente and Ultra-Lente	1.9%	0%
Oral agents and Insulin	1.9%	0%
Injection one time a day	49.9%	13%
Injection two times a day	49.2%	87%
Injection three times a day	0.9%	0%
Types of Insulin Given in P.M. to Those on Multiple Injections		
Regular	47%	1%
Lente	14%	6%
N.P.H.	27%	3%
Semi-Lente	0.6%	0%
Semi-Lente and Lente	2.6%	0%
Regular and N.P.H.	5%	38%
Regular and Lente	2%	52%
Regular and P.Z.I.	1.3%	0%

FIGURE 8: Comparison of insulins being used in children attending Indiana's Camp for Children with Diabetes—1959-1970 and 1980.

coming to camp. Twenty-one per cent required an increase in insulin dosage. These individuals were assumed to be under poor control at home *(Figure 7).*

4. *Insulin Management:* Probably the most significant single change in the 25 years of the camp's operation is found in the home insulin management programs of the children. Data presented in *Figure 8* represent insulin use and frequency of dose at home. Significant changes noted include: 1) the total lack of PZI used in contrast to the 24.8% seen in the 1959 to 1970 data, 2) the mixture of an intermediate and short acting insulin is now being used in 88% of the campers in contrast to 29% previously, and 3) the increase in split dosages.

From 1959 to 1970, 50% of the children received one dose a day. In 1980, 87% received two doses a day. Evening doses are now a mixture of intermediate and regular in 90% of children, where 88% were receiving a single insulin in the evening previously. Forty-seven per cent of the patients took regular insulin alone as an evening dose in the 1959 to 1970 data.

Summary

Comparison of medical data accumulated at Indiana's Camp for Children with Diabetes has been used as a barometer indicating methods and levels of control obtained in Indiana's children with diabetes. The data reveal that several aspects of diabetes care have changed significantly. There is a change from the centralized Marion County care to more diverse locations.

The physical characteristics of the children and the age of onset has not changed significantly over the 25 years. The method of management has changed to the use of split dosages with a mixture of intermediate and short acting insulins both morning and evening. This change reflects a greater effort by physicians to obtain good control of the blood sugar. Measurement of glycosylated hemoglobin levels indicate, however, that excellent levels of control have not been achieved to date.

Through the use of Indiana's Camp for Children with Diabetes, as an indicator of the level of care of the child with diabetes in the state, encouraging signs of efforts to provide optimal control of the blood sugar were found. In the 25 years of the camp's existence, significant changes in trends of care have been seen. It is encouraging to see that overall management is departing from the free theory of management where minimal efforts at control were made in an effort to make control physiological. Moves from free diet and suboptimal insulin dosage to measured diets and split dosages have permitted this improvement. This trend will hopefully result in prevention or at least delay of the complications of this condition. Continued monitoring of data generated at Indiana's Camp for Children with Diabetes will indicate the effect of these efforts.

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CME QUIZ

Transluminal Coronary Dilatation

CONTINUED FROM PAGES 98-104

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. On the basis of the national experience with PTCA, myocardial infarction has occurred in what percentage of cases?
   a. 5%
   b. 10%
   c. 25%
   d. none

2. Emergency Coronary bypass surgery has been required in what percentage of cases?
   a. 5-10%
   b. 10-15%
   c. 25%
   d. none required surgery

3. PTCA is performed with a pharmacologic protocol designed to prevent platelet aggregation and coronary vasospasm. Agents used include all of the following except:
   a. Heparin
   b. Nitroglycerin
   c. Dextran
   d. Dopamine

4. In the National experience, what percentage of lesions attempted have been successfully dilated?
   a. 100%
   b. 90%
   c. 80%
   d. 60-70%

5. Following successful dilatation, what percentage of patients have symptomatic improvement?
   a. 90%
   b. 70%
   c. 50%
   d. 25-50%

6. Overall complication rate with PTCA has been approximately:
   a. 1%
   b. 5%
   c. 10%
   d. 25%

7. The ideal candidate for angioplasty has all of the following characteristics except:
   a. Recent onset of pain.
   b. Objective evidence of ischemia
   c. Symptomatic on maximal medical management
   d. Is not a surgical candidate

8. The ideal coronary artery lesion for PTCA has the following characteristics except:
   a. Proximal
   b. Discrete
   c. Concentric
   d. Calcified

9. In the experience to date, the PTCA has been most successful in dilating lesions of the:
   a. Right coronary artery
   b. Left main coronary artery
   c. Left anterior descending artery
   d. Left circumflex artery

10. Contraindications to PTCA include all of the following except:
    a. Left main coronary artery stenosis
    b. Not a candidate for surgery
    c. Poor left ventricular function
    d. Unstable angina

January CME Quiz Answers

Following are the answers to the CME quiz that appeared in the January 1982 issue of THE JOURNAL: "Life-Threatening Complications of Duodenal Ulcer," by John L. Glover, M.D. et al.

1. b	6. d
2. d	7. d
3. d	8. d
4. c	9. d
5. a	10. d

Answer sheet for Quiz: (Transluminal Coronary Dilatation)

1. a b c d	6. a b c d
2. a b c d	7. a b c d
3. a b c d	8. a b c d
4. a b c d	9. a b c d
5. a b c d	10. a b c d

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing lable)

Signature

To be eligible for this month's quiz, send your completed, signed application before March 10, 1982 to the address appearing at the top of this page.

Patient Package Insert Requirements

Statement of the American Society of Internal Medicine

Following is the official statement of the American Society of Internal Medicine on Patient Package Insert Requirements for Prescription Drug Products to the Food and Drug Administration, Department of Health and Human Services, October 1981:

The American Society of Internal Medicine (ASIM) is a federation of 51 state component societies representing more than 17,500 members who, by training and practice, are recognized as specialists in internal medicine. Most of our members are in private practice providing direct patient care. ASIM is vitally interested in the marketing and regulation of drugs, particularly because by the very nature of internal medicine many of our members' patients' illnesses are managed best by drug therapy.

ASIM endorses patients' rights to know about the drugs that are prescribed for them. Whether or not mandatory patient package inserts provide the best means to this end is still an open question. There is no reliable data to show that PPIs would have enough of a positive effect to counter balance the costs, bureaucratic burdens and possible negative effects of such a program. Lacking conclusive evidence of overall benefit to the public, we feel that such a regulatory program would be unwise.

Rand Corporation Study

The recently published study of drug labeling entitled *Informing Patients About Drugs,* has been touted by some as an answer to the lack of data with regard to PPIs. In general, we feel that the interpretations of the study data are highly questionable, and that the study conclusions do not justify a mandatory federal program.

There are at least two readily apparent methodological flaws: 1) only 56% of those asked to participate in the study chose to do so (meaning that a significant number of those approached declined participation, so there is no relevant information which exists on nearly one-half of the population); and 2) those choosing to participate were told that they would be cooperating in a study of the information people have about prescriptioin drugs. It logically follows that one would be more likely to read the information given to him or her if he or she knew they were going to be questioned about it later.

We further question the conclusions of the study because of the prevalence of evidence submitted by physicians derived from their practice experiences, which contradicts these findings. For example, the study states:

"We found no evidence that patients who received a PPI were *any more or less likely to comply* with the prescribed regimen or (if the amount to be taken is left up to them) to alter their patterns of drug use. Our results also provide no evidence that patients' initial decisions regarding drug therapy are much affected by receiving a PPI. Most respondents elected to take the drug once they had purchased it; only a tiny fraction seem to have changed their decision as a result of the information they received." (emphasis added)

If assumed to be true, this conclusion in itself is enough to raise questions about the wisdom of mandating PPIs.

The actual experiences of many practicing physicians, however, indicate that there can be significant negative effects on patient behavior. ASIM has received a number of letters from practicing physicians that document the potential adverse effects of PPIs. For example:

A physician in Oregon writes:

"I am writing to report to you on a problem I have observed with a PPI for diethylstilbesterol. This drug was prescribed to my 89-year-old grandfather because he had prostate adenocarcinoma. He is a very spry man with no evidence of senility but with a lifelong fear of doctors and a cautious approach to the use of any pills, including prescription drugs. When he read the Patient Package Insert on diethylstilbesterol, he was frightened and without discussing it with his physicians, simply did not take the medicine. I discovered this during a medical evaluation which I performed at the request of the family. Upon reading the PPI, I think that his response was not entirely irrational. At the very least, there should be separate PPIs for male patients who are taking it for management of prostate carcinoma. Most of the information has to do

with the wide range of indications for the drug and side effects, most of which involve women.

"In this case, the PPI was clearly harmful and I think it is reasonable to predict that a real proportion of 89-year-old men like him might do just as he did after reading that PPI."

A physician in San Francisco writes:

"Regarding PPIs, the enclosure for dienestrol or Premarin cream has been very troublesome. I have many elderly patients who require this for atrophy of the mucosa and/or urethral caruncles.

"Even if this is anticipated and the problem is discussed with the patient, we invariably get another telephone call (or more) asking if we are sure that they aren't going to get cancer. More work for us as physicians and time, which is all important to us."

A physician in Indianapolis writes:

"As an oncologist, I find the package inserts in estrogenic and progestational agents to be particularly ludicrous. These warn the patients who are receiving them who obviously already have cancer that massive doses cause cancer in animals. I don't think it so much distresses the patient regarding the medication as it does the sensibility of his government."

A physician in Kansas writes:

"A true story. Two or three years ago I saw a young mother who was having a good deal of indigestion and she did have a peptic duodenal ulcer. In talking to her about the causes of this, I mentioned the overproduction of acid. At that time I was using Bentyl and gave her a prescription for that.

"I saw the patient one month later at which time she was no better, much to my surprise, and asked her if the medicine helped or not. Her answer was that the pharmacist had given her a package insert stating that Bentyl was dicyclomine hydrochloride, and since I told her that it was related to overproduction of acid, she would not take the medicine because of the hydrochloride.

"The patient obviously does not know the difference between hydrochloric acid and hydrochloride, but thought this would be of some interest."

A physician in Virginia writes:

"Our practice had an experience with the insert left in the Proventil package. The package insert states that the inhalant should not be used with other inhalants and thus our patient had discontinued the use of Vanceril, which as you know is a completely different medication being a steroid and, consequently, the patient's asthma has flared and on at least one instance the patient was hospitalized because of acute difficulty. Obviously these are examples of patients truly reading the PPI and following the directions to their detriment. I do not feel that the PPI has been demonstrated to be helpful to the patient, or his health care and do feel that the patient should obtain medical knowledge from his personal physician and his pharmacist."

We do not pretend that these comments represent a scientific analysis of any kind. However, reports like this from "real life" practice experiences do raise serious questions about the validity of many of the conclusions of the Rand study.

The study purports to show that people like to receive printed information about their drugs, that it is read and retained to a large degree when provided, and that it has no discernable effect upon patient health. Experiential evidence, however, indicates that there may be a significant negative effect. Does this justify a mandatory federal program with significant costs? We think not.

Alternatives to Federal Regulations

Another fact which leads ASIM to question the wisdom of mandatory PPIs is the prevalence of non-governmental alternatives. One company has produced a binder on the top 200 prescription drugs which was placed in 3,200 pharmacies. The success of this approach resulted in a paperback book with the same information, which has been extremely popular with consumers. The U.S. Pharmacopeial Convention has produced a consumer volume entitled "About Your Medicines", which is designed for use in the home or the physician's office, and photocopying of appropriate sections for patient use is encouraged. ASIM is actively involved in making the U.S.P. book available to practicing internists, who prescribe a large percentage of the drugs used in non-institutional settings. Pharmacy chains, drug companies and other interested parties have also implemented their own drug information systems.

Summary

As the Rand study shows, patients desire more information about their drugs. As the physician comments quoted earlier indicate, providing this information on a mandatory basis without physician discretion is, at best, a questionable response to this need. As the plethora of private alternatives suggest, the market is clearly willing and able to meet the demand created by consumer desire for information about prescription drugs. Consequently, ASIM believes that PPIs should not be mandated. The expenditure of tax dollars and increased drug costs is not justified unless it is conclusively demonstrated that they have significant advantages over less costly voluntary alternatives and will improve health, increase compliance, and decrease mortality and morbidity.

Candidates for nutritional therapy...

10,000,000 alcoholics. Ethanol may produce many effects that together bring about nutritional deficiencies, so that alcoholism affects nutrition at many levels.[1]

25,500,000 geriatric patients. The older patient may have some disorder or socio-economic problem that can undermine good nutrition.[2]

23,500,000 surgical patients. Nutritional status can be compromised by the trauma of surgery; and some operations interfere with the ingestion, digestion and absorption of food.[3]



Before prescribing, please consult complete product information, a summary of which follows:
Each Berocea® Plus tablet contains 5000 IU vitamin A (as vitamin A acetate), 30 IU vitamin E (as *dl*-alpha tocopheryl acetate), 500 mg vitamin C (ascorbic acid), 20 mg vitamin B_1 (as thiamine mononitrate), 20 mg vitamin B_2 (riboflavin), 100 mg niacin (as niacinamide), 25 mg vitamin B_6 (as pyridoxine HCl), 0.15 mg biotin, 25 mg pantothenic acid (as calcium pantothenate), 0.8 mg folic acid, 50 mcg vitamin B_{12} (cyanocobalamin), 27 mg iron (as ferrous fumarate), 0.1 mg chromium (as chromium nitrate), 50 mg magnesium (as magnesium oxide), 5 mg manganese (as manganese dioxide), 3 mg copper (as cupric oxide), 22.5 mg zinc (as zinc oxide).

Indications: Prophylactic or therapeutic nutritional supplementation in physiologically stressful conditions, including conditions causing depletion, or reduced absorption or bioavailability of essential vitamins and minerals; certain conditions resulting from severe B-vitamin or ascorbic acid deficiency; or conditions resulting in increased needs for essential vitamins and minerals.
Contraindications: Hypersensitivity to any component.
Warnings: Not for pernicious anemia or other megaloblastic anemias where vitamin B_{12} is deficient. Neurologic involvement may develop or progress, despite temporary remission of anemia, in patients with vitamin B_{12} deficiency who receive supplemental folic acid and who are inadequately treated with B_{12}.
Precautions: *General:* Certain conditions may require additional nutritional supplementation. During pregnancy, supplementation with vitamin D and calcium may be required. Not intended for treatment of severe specific deficiencies. *Information for the Patient:* Toxic reactions have been reported with injudicious use of certain vitamins and minerals. Urge patients to follow specific dosage instructions. Keep out of reach of children. *Drug and Treatment Interactions:* As little as 5 mg pyridoxine daily can decrease the efficacy of levodopa in the treatment of parkinsonism. Not recommended for patients undergoing such therapy.
Adverse Reactions: Adverse reactions have been reported with specific vitamins and

ROCHE

5,000,000 hospital patients with infections.[4] Many are anorectic and may have a markedly reduced food intake. Supplements are often provided as a prudent measure because the vitamin status of critically ill patients cannot be readily determined.[3]

The incalculable millions on calorie-reduced diets. Patients ingesting 1000 or fewer calories per day could be at high risk because this intake may not supply most nutrients in adequate amounts without supplementation.[5]



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A balanced formula for prophylactic or therapeutic nutritional supplementation.

Berocca Plus Tablets provide: therapeutic levels of ascorbic acid and B-complex vitamins; supplemental levels of biotin, vitamins A and E, and five important minerals (iron, chromium, manganese, copper and zinc); plus magnesium. Berocca Plus is not intended for the treatment of specific vitamin and/or mineral deficiencies.

Berocca Plus, highly acceptable to patients, has virtually no odor or aftertaste and is economical. And its "Rx only" status means more physician involvement, better patient compliance.

References: 1. Shaw S, Lieber CS: Nutrition and alcoholism, chap. 40, in *Modern Nutrition in Health and Disease*, edited by Goodhart RS, Shils ME. Philadelphia, Lea & Febiger, 1980, pp. 1220, 1237. 2. Watkin DM: Nutrition for the aging and the aged, chap. 28, in *Modern Nutrition in Health and Disease, op. cit.*, p. 781. 3. Shils ME, Randall HT: Diet and nutrition in the care of the surgical patient, chap. 36, in *Modern Nutrition in Health and Disease, op. cit.*, pp. 1084, 1089, 1114. 4. Dixon RE: *Ann Intern Med 89* (Part 2): 749-753, Nov 1978. 5. Committee on Dietary Allowances, National Research Council: Recommended Dietary Allowances, ed 9. Washington, National Academy of Sciences, 1980, p. 13.

minerals, but generally at levels substantially higher than those in Berocca Plus. However, allergic and idiosyncratic reactions are possible at lower levels. Iron, even at the usual recommended levels, has been associated with gastrointestinal intolerance in some patients.

Dosage and Administration: Usual adult dosage: one tablet daily. Not recommended for children. Available on prescription only.

How Supplied: Golden yellow, capsule-shaped tablets—bottles of 100.

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THE MULTIVITAMIN/MINERAL FORMULATION

The Honeymoon Is Over

Malpractice Update

DR. JAMES SAMMONS, executive vice-president of the American Medical Association, declares, "1981 nationwide facts clearly indicate the honeymoon is over for physician-owned companies writing medical liability insurance, and the long tail on claims has arrived."

Dr. Sammons made his remarks in an address during the Forum for Medical Affairs program, held Dec. 6 in the Las Vegas Hilton.

Although the frequency and severity of claims are increasing at an alarming rate, Dr. Sammons urged the continued support of physician-owned companies, because "they will be there when you need them." He said 45% of the national market is covered by physician-owned companies, and the American Medical Association Insurance Company is providing reinsurance for 45,000 physicians in the U.S. today.

Dr. Brad Cohn, president, California Medical Association, said California is experiencing a repeat of the 1974-75 crisis and does not see it changing. He blames this trend on liberal courts in California, higher limits of claims, and higher costs for medical liability insurance. In talking about the liberal court systems, Dr. Cohn cited a recent court case in which it was decided that a physician must explain all risks if the patient refuses to submit to tests and then must be able to prove that he explained those risks to the patient if a claim results.

Dr. Arthur Mannix, president, Medical Liability Mutual Insurance Company, echoed the remarks of Dr. Cohn, stating that New York has been in a continuing crisis since 1973 with no relief in sight. One of the problems he sees with the increasing cost of medical liability insurance is that physicians can no longer pass the cost on to the patient. "We are looking at a fixed fee market whether we like it or not," he said.

The story from Indiana and New Jersey was much brighter. Dr. Gilbert M. Wilhelmus, past president of the Indiana State Medical Association and a member of Indiana's Legislative Medical Malpractice Study Committee, said the number of claims being filed in Indiana today are the same as they were 2½ years ago. He said the premium for medical liability insurance has been stable since the passage of the Patient's Compensation Act in 1975, and there is no problem obtaining coverage.

Bernard H. Genest, vice-president, Claims Administration of New Jersey State Medical Underwriters, Inc., said there is no evidence that there has been an increase in severity in New Jersey in the past five years. He said this was partially attributable to the short time it takes to close a claim in New Jersey—9.6 months—as opposed to the national average of 37 to 46 months. Mr. Genest said the interest on reserves is not keeping up with medical liability inflation, which is running at 30%, and this could create a problem for physician-owned companies in the future if management fails to take action now.

In talking about the viability of physician-owned companies, Dr. Vernon B. Astler, chairman of the Board, Florida Physicians Insurance Reciprocal, pointed out the need for loss control programs. He said the Florida company held six loss control seminars in 1980, which were attended by 600 of its policyholders. The benefits derived from those seminars have included fewer claims filed against those physicians who attended; and those physicians who attended, but have been sued, have been more defensible than those physicians sued who have not attended. They increased the number of seminars to 37 in 1981 and have now reached more than 7,000 of their insured. Two of these seminars were videotaped and will be made available to other states upon request.

In looking at some of the facts gathered through risk management, Dr. William D. Robertson, chairman, Risk Management Committee for the Washington State Medical Society, said he believes you can improve the quality of medical care, reduce the risk to patient and physician, and control cost of premium and settlement if the program is set up properly. He said such a committee needs to look at the trends in malpractice claims—whether preventable—and the process for early detection and avoidance.

Dr. Robertson said their records show that where adequate records are kept by a physician there is no payout in 64.5% of the claims. However, when inadequate records are kept, 61.4% result in paid claims. The same is true for reporting a suspected claim. For a suspected claim reported in less than a year, the mean cost for settling that claim is $21,000. If it is not reported until three years or more, the cost for settling that same claim is $65,000. In claims closed before 1980, informed consent was a problem in 21% of the claims. The claims opened in 1980-81 show informed consent has become a problem in 31% of the claims, Dr. Robertson said. "This is something we can control," he added.

The Forum for Medical Affairs is composed of presidents, presidents-elect, editors of state medical association journals, executive directors of state medical associations, and representatives of AMA-recognized medical specialty societies.

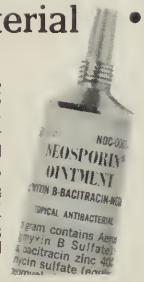
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INDICATIONS: *Therapeutically* (as an adjunct to systemic therapy when indicated), for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection. *Prophylactically* the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the eyes or in the external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

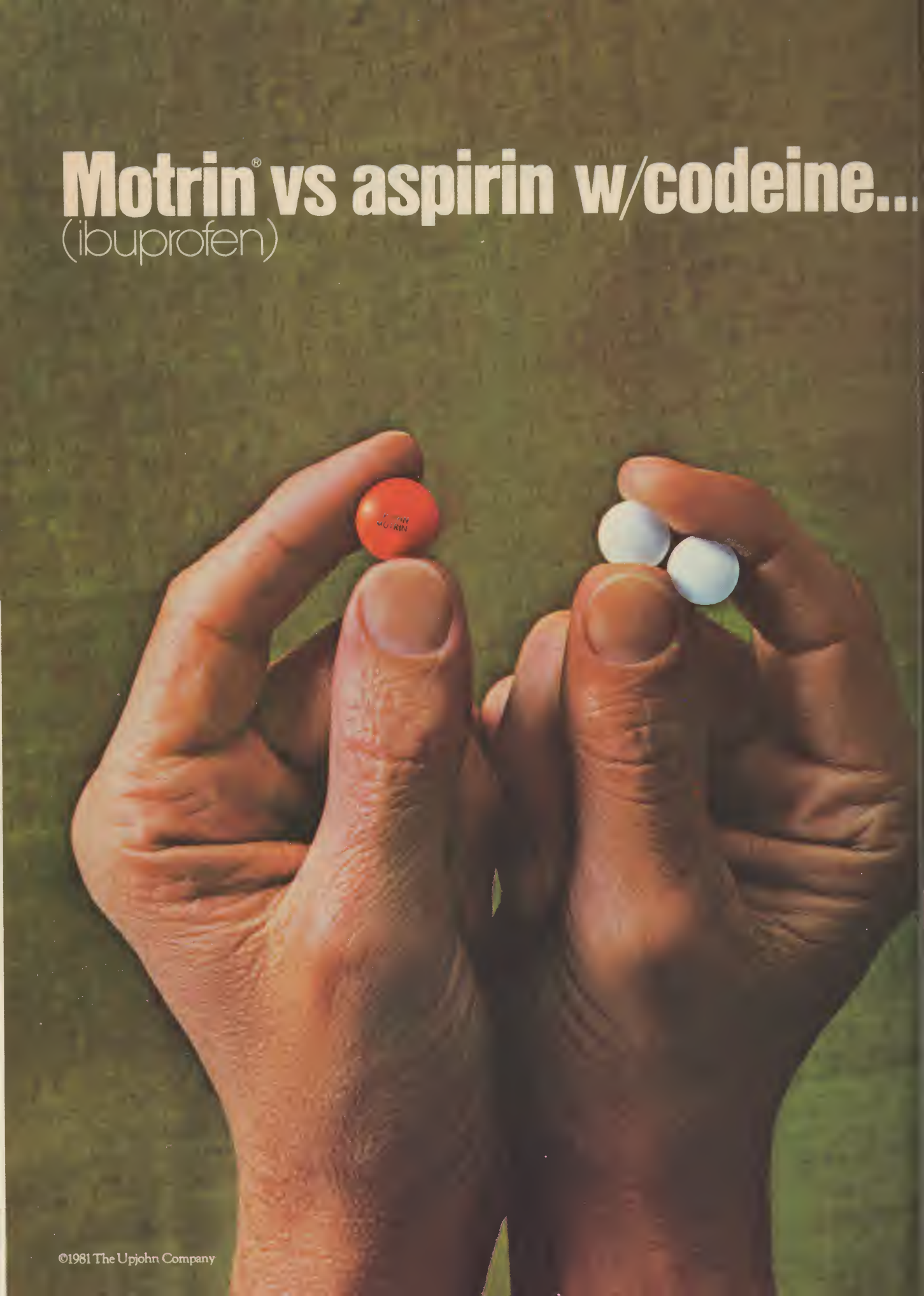
ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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Motrin® vs aspirin w/codeine...
(ibuprofen)

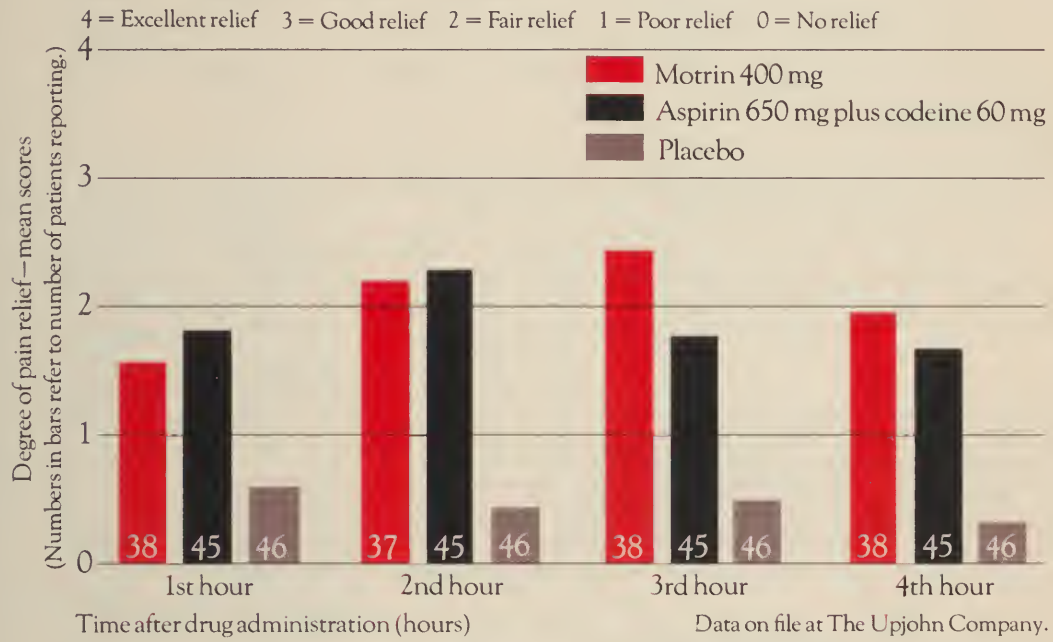


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compare the analgesic effect

A *Motrin* 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients. In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the *Motrin* and aspirin-with-codeine groups... with *Motrin* being significantly more effective ($p = 0.03$) at the three-hour interval. Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief
Motrin vs aspirin-codeine combination



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One tablet q4-6h prn
For relief of mild to moderate pain:

Motrin® 400 mg TABLETS
ibuprofen, Upjohn

• Not a narcotic • Not addictive • Not habit forming • Nonscheduled • Acts peripherally • Relieves pain rapidly • Relieves inflammation • Indicated in acute and chronic pain • Well tolerated (The most common side effect with *Motrin* is mild gastrointestinal disturbance.)

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin® (ibuprofen) now proved an effective analgesic for mild to moderate pain

Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea;* epigastric pain;* heartburn;* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness;* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

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MARCH 1981

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ARTHRITIS FOUNDATION

RONALD G. BLANKENBAKER, M.D.
State Health Commissioner

New information from
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Indiana State Board of Health
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PUBLIC HEALTH NOTES

Premarital Syphilis Testing

The role of premarital serological testing for syphilis has recently received much attention by the medical and political communities, especially since Dr. Yehudi Felman's article, "Should Premarital Syphilis Serologies Continue to be Mandated by Law," was published in the Journal of the American Medical Association in 1978. Doctor Felman advocated abolishing mandatory premarital syphilis screening; however, he later modified this stance, indicating that public health officers should be allowed to implement a screening program in areas or regions where and when indicated.

A few articles on the subject have been published since that date. Nine state legislatures have chosen to rescind the requirement for a serological test before a marriage license could be issued. On the other hand, words of caution regarding changes in policy regarding syphilis surveillance and control programs have been written and spoken by various persons including the Director of the Venereal Disease Control Division, Centers for Disease Control, U.S. Department of Health and Human Services, Atlanta, Georgia.

This situation is compromised, both nationally and in Indiana, by the fact that the total impact of premarital serological testing on the control of syphilis cannot be readily assessed from the data which are available. In recent years the inclination has been to believe that syphilis has become an uncommon disease. This attitude may have resulted partially because of the shifting of more of the personnel and monetary resources to gonorrhea control because of overall lack of resources for adequate attention to case finding and contacts for both diseases. As a result, syphilis surveillance has faded somewhat into the background.

Showing a concern toward these developments, the 1981 Indiana General Assembly, through P.L. 197, directed the "State Board of Health (to) study the cost effectiveness of the current premarital syphilis screening program and . . . report its findings and recommendations . . . to the Indiana Legislative Council for transmission to the members of the Indiana General Assembly."

Consequently, an advisory Task Force for Prevention of Handicapping Conditions, which consists of individuals from the lay and professional community all with expertise relevant to the subject, was directed to analyze this situation. After careful analysis of the literature and discussion with many experts, the Task Force reports that:

1. National statistics show that the reported cases of primary and secondary syphilis increased 33.4 percent in the United States over the three years 1977-1980; the rate per 100,000 population increased by 26.3 percent (Centers for Disease Control data). The number of reported cases in Indiana increased 29.3 percent; the rate increased 27.6 percent.

2. For the three years, 1978 through 1980, 40 cases of congenital syphilis were reported in Indiana. During these same years, syphilis was the primary cause of death for 17 persons in Indiana, a fact seldom mentioned. Syphilis was listed as a primary cause of death in 71 instances in Indiana in the past 10 years.

3. The 155 Indiana laboratories approved for premarital serological testing were surveyed this year. Of the 113 reporting (72 percent), 75 could report specifically on premarital serological testing; the remainder could not separate the premarital testing from the other serological syphilis testing.

4. Charges for the laboratory test ranged from $3.20 to $14.00; the average charge was $6.59. There were 57,853 marriages in Indiana in 1980. Using these figures, a rough estimate of $762,000 was paid by the consumer for the laboratory test; the physician's fee for examination and consultation is not included in these figures.

5. The State Board of Health laboratories have charged $2.50 for the serological test for syphilis since 1965. In fiscal year 1976, the State Board of Health performed 4,985 premarital serologies; this dropped to 4,362 in 1979. The state legislation requiring premarital rubella and erythroblastosis testing in addition to syphilis serology testing went into effect September 1, 1980, and there was a dramatic decrease to 552 serologies done at the State Board of Health in the next 12 months. This, undoubtedly, can be attributed to a specimen being sent to one laboratory rather than being divided with one part being sent to a laboratory for rubella and erythroblastosis testing and the other sent to the State Board of Health for syphilis serological testing. The State Board of Health laboratories do not perform serological tests for rubella and erythroblastosis. The final report of the Task Force which has been sent to the General Assembly states that:

1. The Task Force and its subcommittees, with the assistance of certain State Board of Health and

CONTINUED ON PAGE 144



AUXILIARY REPORT

Marianna (Mrs. Glenn W., Jr.) Irwin
President, ISMA Auxiliary

Kathy Whitmore
Intern and Resident Contact

A national drive is underway to interest the spouses of resident physicians in membership in the medical auxiliary. Some of these spouses are less than one year away from full-time auxiliary membership and if we are to add them to our ranks once their spouses are practicing physicians, we must "court" them now!

In the Marion County area we have a wealth of future members as we discovered on November 10, at the home of ISMA Auxiliary president, Mrs. Glenn W. Irwin, Jr. The State Auxiliary, in a first time effort, invited the spouses of residents from Community, Indiana University, Methodist, St. Francis, and St. Vincent Hospitals to a program featuring Dr. Diane Brashear. It was



Kathy Whitmore

to a standing-room only crowd that Dr. Brashear, a certified sex therapist and specialist in individual and family counseling, discussed the stresses encountered by physicians and their spouses. Questions followed which indicated the need to teach medical students how to manage stress. Dr. Brashear is concerned about reducing the chances of these young physicians becoming future impaired physicians.

We were quite pleased with the more than 100 spouses who heard Dr. Brashear's relevant message. But we never expected to receive dues from 42 spouses, with more memberships still coming in each week! All who attended will be receiving the newsletter HORIZONS, especially written for residents' spouses, and information about future meetings. Our next challenge is to find a program which equals Dr. Brashear's. Any suggestions?

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Adkins, Stanley R., Columbus
Ahler, Kenneth J., Rensselaer
Ali, Syed A., Boonville
Angeles, Armando E., Connersville
Breitenfield, Richard V., Muncie
Brillhart, James R., Indianapolis
Burney, Bryan T., Indianapolis
Cooper, William E., Columbus
Daley, Edward H., Indianapolis
Del Giudice, Joseph, Jasper
Doherty, Raymond J., Merrillville
France, Lloyd C., Plymouth
Greenwood, Charles W., Columbus
Hamaker, Ronald C., Indianapolis
Heavrin, John S., Martinsville
Hendrie, Hugh C., Indianapolis
Ko, Benny S., Brazil
Korn, Jerome M., Gary
Krishna, M.S., Princeton
Lauer, Dean H., Valparaiso
Luhmuller, Herbert W., Bluffton
Martino, Robert S., Merrillville
McGarvey, William K., Indianapolis
Mellinger, Michael O., LaGrange
Meyers, Mark E., Evansville
Mulligan, William S., Evansville
Nero, Richard P., Madison
O'Brian, Earl J., Indianapolis
Paraiso, Antonio Q., Richmond
Reid, James D., Marion
Sheehy, Joseph C., Columbus
Stegemoller, Ronald K., Danville
Stein, Mark H., Indianapolis
Stone, Dennis E., Columbus
Walker, Adolph P., Munster
Worley, Joseph P., Indianapolis

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Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	MITHRAMYCIN	MITOMYCIN
Category:	Antibiotic	Antineoplastic
Brand Name:	Mithracin, Dome	Mutamycin, Bristol
Generic Name:	Mithramycin	Mitomycin
Dosage Forms:	Injection	Injection

	PHENAPHEN	PHENERGAN
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FUTURE FILE

Total Hip Joint Replacement

The National Institutes of Health will conduct a Consensus Development Conference on total hip joint replacement in Masur Auditorium, Bldg. 10, NIH, Bethesda, Maryland, March 1 to 3. Philip D. Wilson, Jr., surgeon-in-chief at the Hospital for Special Surgery, New York City, will chair the conference. For program information, write to Stephen L. Gordon, Ph.D., Westwood Bldg., Room 405, Bethesda, Md. 20205, or phone (301) 496-7326.

Child Care Conference

The 17th annual Indiana Multidisciplinary Child Care Conference will be held at the Hyatt-Regency Hotel in Indianapolis, May 19 and 20.

The speakers and subjects will include: David Carver, M.D.—Pediatric Infectious Disease—Parts I & II; Gerald Golden, M.D.—Child Development and Neurology—Parts I and II; Elizabeth McAnarney, M.D.—Adolescent Health—Parts I & II; Barton Schmidt, M.D.—Ambulatory Problems in Pediatrics—Parts I & II; Richard Schreiner, M.D.—Neonatology—Parts I & II; and the banquet speaker, Richard Goldbloom, M.D.

For further information, contact Morris Green, M.D., Indiana University School of Medicine, 1100 W. Michigan St., Indianapolis, Ind. 46223.

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Two-Day Breast Cancer Meeting

"Breast Cancer" will be the subject of a CME conference at Bethesda Hospital, Cincinnati, Nov. 5-6. The course will allow 12 hours of Category 1 credit. It is oriented to primary care physicians, oncologists and radiation therapists. Write to Thomas J. O'Connor, 619 Oak St., Cincinnati 45206.

Annual Meeting in Indianapolis

The American Lung Association of Indiana and the Indiana Thoracic Society Annual Meeting will be held April 14-15 at the Indianapolis Marriott Inn. The two societies will conduct simultaneous two-day scientific programs. For full particulars, write to Brenda Fike, 30 E. Georgia St., Room 401, Indianapolis 46204, or phone (317) 632-3383.

Kidney Disease Update

"Kidney Disease Update" will be the subject of a CME conference at Bethesda Hospital, Cincinnati, Oct. 29-30. The course carries 10 hours of Category 1 credit, and is oriented to primary care physicians. Write to Thomas J. O'Connor, 619 Oak St., Cincinnati 45206.

Breast Cancer Conference

"Breast Cancer" will be the subject of an all-day conference to be conducted April 15 as a portion of the CME program of Reid Memorial Hospital, Richmond, Ind. Full details and a program may be obtained by writing the hospital at 1401 Chester Blvd., 47374, or by phoning (317) 962-4545.

Emergency Care of Children

"Critical and Emergency Care of Children" is the subject of a CME seminar to be conducted by the Methodist Hospital of Indianapolis at the Sheraton West Hotel, Indianapolis, March 10-12. Drs. Russell Raphaely and Judith Bausher will participate as members of the guest faculty.

For full information, write the Division of Academic Affairs of Methodist Hospital, 1604 N. Capitol Ave., Indianapolis 46202 or phone (317) 927-3733.

Polytomography of the Temporal Bone

A two-day symposium on Polytomography of the Temporal Bone will be given under the auspices of the Wright Institute of Otology at Community Hospital, Indianapolis, March 6 and 7.

The symposium meets the criteria for 12 AMA Category 1 credit hours. Fee for the course is $300.

Direct inquiries to the Wright Institute of Otology, Inc., Community Hospital of Indianapolis, 1500 N. Ritter Ave., Indianapolis 46219. Tel: (317) 353-5679.

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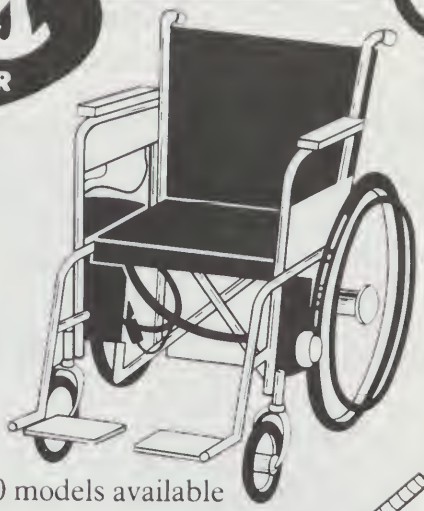
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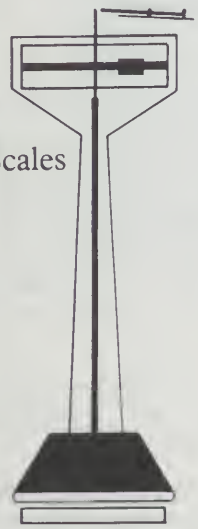
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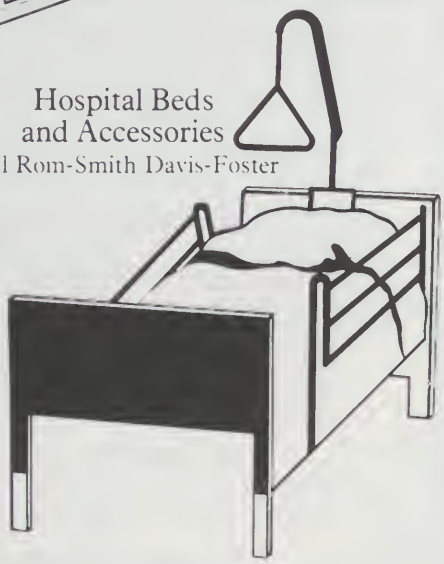


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NEWS NOTES

Here and There . . .

. . . **Dr. Arthur L. Wagner** of Jasper was among several ISMA physicians recently honored by the American Academy of Family Physicians for having maintained AAFP membership for 25 years.

. . . **Dr. Michael L. Neely** of Danville discussed Sudden Infant Death Syndrome during a December workshop at the Brownsburg Public Library.

. . . **Dr. James R. Lewis** has been elected chief of staff at Reid Memorial Hospital, Richmond. **Dr. Alfred E. Hollenberg** was elected chief of staff-elect and **Dr. Richard M. Butler** was elected secretary.

. . . **Dr. L. C. McCloud** and **Dr. Hugh T. Owen** of Jeffersonville have become members of the Board of Directors, Clark County Unit, American Cancer Society.

. . . **Dr. Carl M. Porter** of Jasonville was guest of honor at a November celebration honoring him on the 50th anniversary of starting his medical practice.

. . . **Dr. Karl M. Koons** of Indianapolis has been elected president of the St. Francis Hospital medical staff. Also elected were **Dr. Robert R. Kopecky,** president-elect, and **Dr. Gerald C. Walthall,** secretary.

. . . **Dr. Malcolm O. Scamahorn** of Pittsboro addressed the November meeting of the Hendricks County Council on Aging. He is a member of the Technical Advisory Committee for the White House Conference on Aging.

. . . **Dr. Robert D. Arnold** of Indianapolis is taking a 16-month leave from his OB-GYN practice for postgraduate study and a trip to Africa.

. . . **Dr. Paul F. Howard,** a South Bend cardiologist, will be the principal investigator in a heart research project at Memorial Hospital funded by a $10,000 grant from the Eagles Clubs' Max Baer Heart Fund.

. . . **Dr. Daniel M. Newman** of Indianapolis has been elected president of the Methodist Hospital medical staff, succeeding **Dr. Hunter A. Soper.**

. . . **Dr. Alan B. Somers** has been elected chief of staff, Bloomington Hospital, succeeding **Dr. D. Dean Cofield. Dr. William R. Anderson** was elected chief of staff-elect, **Dr. Theodore L. Megremis,** secretary, and **Dr. David K. Johnloz,** treasurer.

. . . **Dr. Stephen R. Ash** of Lafayette has been elected a Fellow of the American College of Physicians.

. . . **Dr. Robyn K. Goshorn** of Franklin has been elected chief of staff at Johnson County Memorial Hospital. **Dr. Mac C. Roller** was elected secretary.

. . . **Dr. Edward Ross** of Indianapolis has been elected vice-president of foreign affairs, American College of Angiology. He also has been named an associate editor of the college's *Journal Angiology.*

. . . **Dr. and Mrs. Alfred E. Hollenberg** of Hagerstown have been presented the 1981 Distinguished Service Award by the Hagerstown Lions Club.

. . . **Dr. Deepak Bhojraj** of Griffith and **Dr. Thomas Green** of Corydon have been named diplomates of the American Board of Family Practice.

. . . **Dr. Robert J. Porte** of Highland has been appointed medical director of Midwest Steel Division, National Steel Corp.

Reservist Commands Ohio Hospital

Dr. Stuart E. Harlowe, New Albany, Colonel, U.S. Army Reserves, is the new commander of the 2291st Army Reserve Hospital, Columbus, Ohio. In addition to serving as hospital commander, he is commander of more than 2,500 Army Medical Department Reservists in Kentucky and Ohio. The command is part of the 83rd Army Reserve Command. Dr. Harlowe practices the specialty of urology in New Albany.



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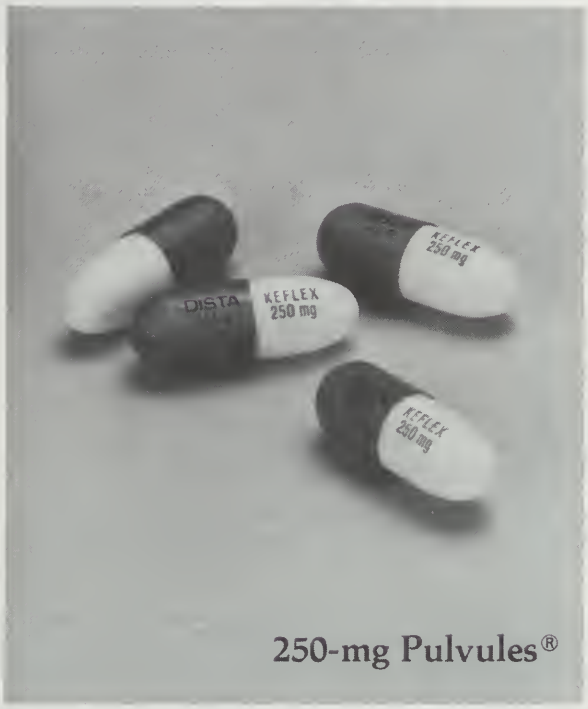
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NEWS NOTES

Retired Terre Haute Nurses Honored

Fourteen retired registered nurses recently were presented a new award by the Indiana State University School of Nursing and its Alumni Association. The award, initiated by Maryanne E. Roehm, Ed.D., dean of the school, was presented for outstanding nursing services contributed to the Terre Haute community for the past 60 years.

The recipients, who were presented a silver tray, a white rose and a certificate of achievement, were Mrs. Ruth Hutchens Bopp, Mrs. Pauline Duffy Crookshank, Mrs. Abigail Griffith DeLoach, Mrs. Mildred Ellis, Mrs. Emma Neal Freeze, Miss Emily M. Gifford, Mrs. Opal Belle Allen Gilbert, Mrs. Juanita Mundy Krieble, Mrs. Margaret Anderson Kruse, Miss Lou Adah McMullen, Mrs. Madelon Walton Reeves, Miss Mabel H. Royse, Mrs. Waunita V. Schepper and Mrs. Ida Smith Kadel.

Hospitals Win Suit Against Medicare

The Indiana Hospital Association has obtained a favorable ruling in regard to the appeal of 51 Indiana hospitals that they should receive Medicare reimbursement for the cost of Hill-Burton uncompensated care.

Hospitals that have received Hill-Burton funds for construction or remodeling must provide specified amounts of uncompensated care within their communities.

At issue was whether or not Medicare should participate in these costs, which must be absorbed by the hospital or passed along to paying private patients or their insurance companies.

Wheelchair with a Brain

A Veterans Administration engineering researcher has received an award in a national contest for design of a "Smart Wheelchair."

David Jaffe and five graduate engineers at Stanford constructed the chair with Polaroid ultrasonic sensors to make it sensitive to and responsive to movements of the patient's head in such a way to allow the passenger to direct chair movement and change of direction. Other features include obstacle detection, wall-following and cruise control.

The chair was an entry in the Johns Hopkins University First National Search for Personal Computers to Aid the Handicapped.

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Correction

Dr. Joseph H. Clark, co-author of the CME article, "Reye Syndrome in Indiana," which appeared in the December 1981 issue of THE JOURNAL, has submitted the following replacement legend for Figure 3:

"Relationship of mortality to peak plasma ammonia levels. Deaths are represented by crosses. Horizontal line corresponds with the institution of pentobarbital-augmented osmotherapy. Vertical lines denote ammonia levels of three and five times normal. Pentobarbital-augmented osmotherapy has improved survival in patients with peak ammonia levels greater than five times normal (Group III) from 31% to 76%."

Premarital Syphilis Testing . . .

CONTINUED FROM PAGE 135

Indiana University Medical Center staff members, should implement a 12-month prospective study of premarital syphilis testing with repeat testing being conducted when indicated.

2. The Task Force and its subcommittees, during this interim period, should address the issue of appropriate timing to test for maternal and congenital syphilis for unrecognized early or late latent syphilis and for selected populations currently required to have a serological test or interval testing to qualify for employment or certification.

3. The State should withhold recommendations for action at this time awaiting completion of these studies since there are not adequate facts available to make a logical cost effective conclusion.

For further information on the activities of this Task Force, contact Dr. Dwain Walcher at 317/633-8423.



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A foundation for charitable, educational, and scientific purposes, organized by the ISMA as an endowment fund to support the educational mission of the Association and THE JOURNAL.

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The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

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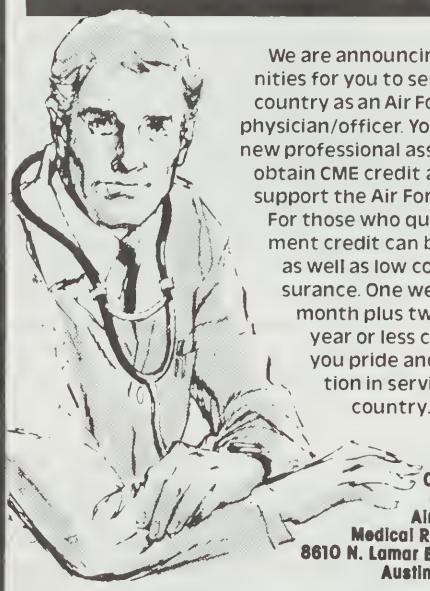
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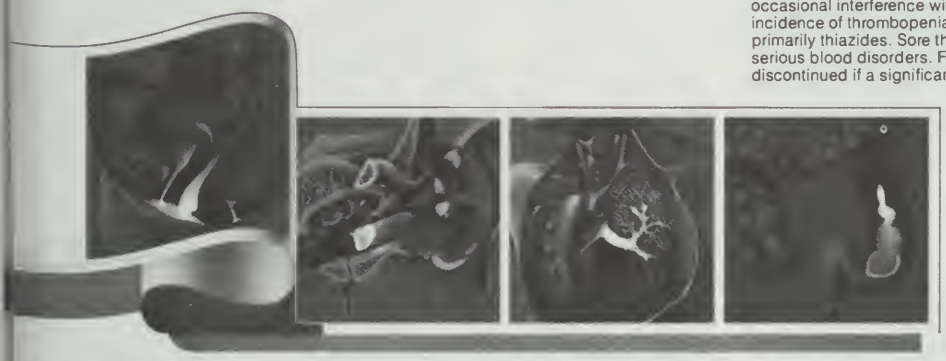
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(trimethoprim and sulfamethoxazole)
succeeds

Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

Expanding its usefulness in antimicrobial therapy



in recurrent UTI...
a continuing record of high clinical effectiveness against common uropathogens

in acute otitis media in children...
effective against both major otic pathogens...with *b.i.d.* convenience

in acute exacerbations of chronic bronchitis in adults...
clears the sputum and lowers its volume...on *b.i.d.* dosage

in shigellosis...
faster relief of diarrhea than with ampicillin[2]

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

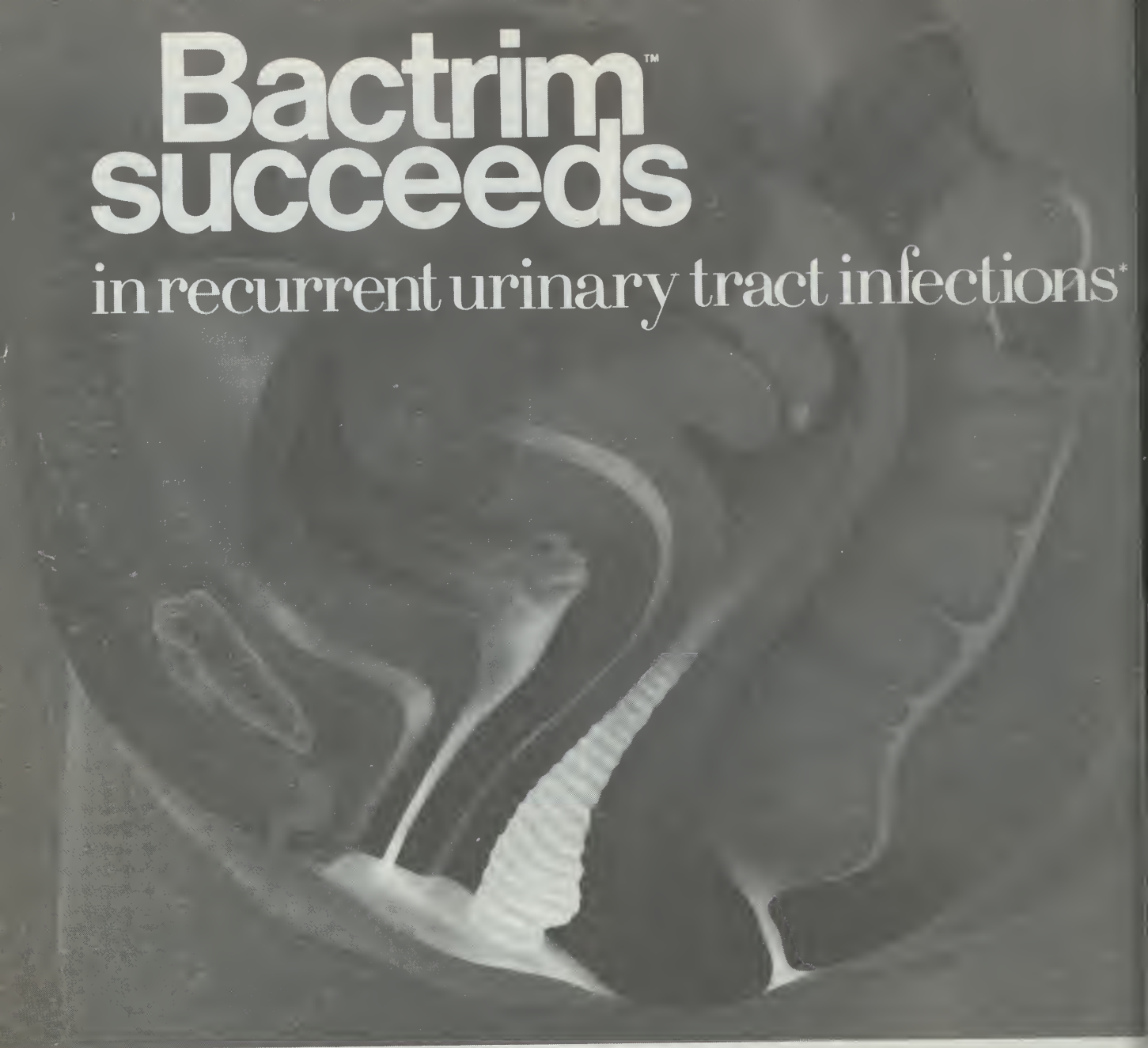
Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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Bactrim™ succeeds

in recurrent urinary tract infections*



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Bactrim continues to demonstrate high clinical effectiveness in recurrent urinary tract infections. Bactrim reaches effective levels in urine, serum, and renal tissue[1]...the trimethoprim component diffuses into vaginal secretions in bactericidal concentrations[1]... and in the fecal flora, Bactrim effectively suppresses Enterobacteriaceae[1,2] with little resulting emergence of resistant organisms.

1. Rubin RH, Swartz MN: *N Engl J Med* 303:426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

Bactrim™ DS

160 mg trimethoprim and 800 mg sulfamethoxazole

DOUBLE STRENGTH TABLETS

maximizes results with B.I.D. convenience

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*due to susceptible strains of indicated organisms

Please see previous page for summary of product information.

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The JOURNAL of the INDIANA STATE MEDICAL ASSOCIATION



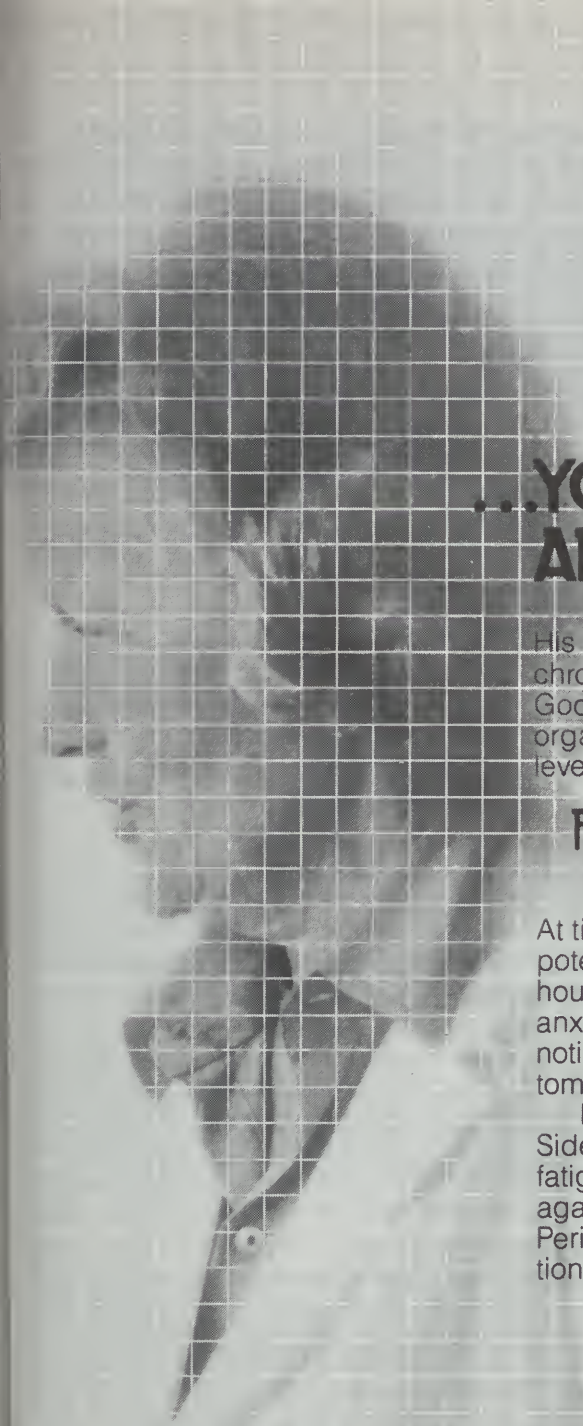
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WILLIAM HENRY WISHARD

A Doctor of the Old School

THE PATIENT THINKS HE HAS HEART TROUBLE...





...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

For rapid relief you prescribe Valium (diazepam/Roche)

At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

VALIUM® (IV)
diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

BECAUSE YOU'RE CONVINCED THE PATIENT NEEDS IT

ROCHE®

Please see summary of product information on the following page.

VALIUM®(diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
How Supplied: For oral administration, Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100* and 500;* Prescription Paks of 50, available in trays of 10.* Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.†

*Supplied by Roche Products Inc., Manati, Puerto Rico 00701
†Supplied by Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, New Jersey 07110

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WHAT'S NEW?

PURDUE FREDERICK has introduced Trilisate Tablets and Trilisate Liquid (Choline Magnesium Trisalicylate), a non-acetylated type of antiarthritic. It is the only anti-inflammatory in the U.S. with a once-a-day dosage and is also the only liquid antiarthritic available on prescription.

SEARLE has FDA approval for marketing Demulen 1/35™, a new low-dose oral contraceptive. Demulen 1/35 has 15 micrograms less estrogen per pill than Demulen®. It contains 1 milligram of a progestogen, ethynodiol diacetate, and 35 micrograms of ethinyl estradiol.

PFIZER LABORATORIES has received FDA approval for marketing of Procardia® (nifedipine), the first oral form of the calcium channel blockers to become available in the U.S. It is approved to treat all forms of angina pectoris, whether due to coronary artery obstruction or arterial spasm, or a combination of both.

GEIGY is marketing Constant-T (anhydrous theophylline) as a prescription medicine for treating asthma, chronic bronchitis and emphysema. Controlled action of Constant-T lasts up to 12 hours. A simplified, one-step manufacturing procedure makes possible a less costly preparation.

SCHERING has a new convenient six-tablet dispensing unit for use in two-tablet, three-day therapy with Gyne-Lotrimin (clotrimazole) 100 mg Vaginal Tablets. The existing seven-day, seven-tablet package will be continued.

THE POLY COMPANY announces the marketing of its "Purifier with a Brain," the Aqua Genie. It is an advanced purifier that makes water so pure it is like distilled water. It operates on the same process which is able to convert sea water to fresh water. It uses no electricity and fits under a kitchen sink.

ORGANON DIAGNOSTICS is introducing new OREIA II β-HCG™, the only supersensitive pregnancy test without radioactivity. The test is easy to perform and requires only pipettes and a spectrophotometer. Both serum and urine samples may be tested with one test kit.

CONTINUED ON PAGE 224

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

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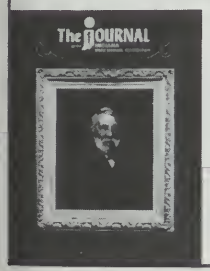
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ABOUT THE COVER

William Henry Wishard, M.D. (1816-1913) was a charter member of the historic group that organized the Indiana State Medical Association in 1849. The portrait on our cover was painted by T. C. Steele. For more about Dr. Wishard, see Museum Notes on Page 154.

MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

Illustrated on this page are the frontispiece and title page of the biography of Dr. William Henry Wishard by his daughter, Elizabeth Moreland Wishard (The Hollenbeck Press, Indianapolis, 1920). On the inside cover, written in a tremulous hand, is inscribed the following:

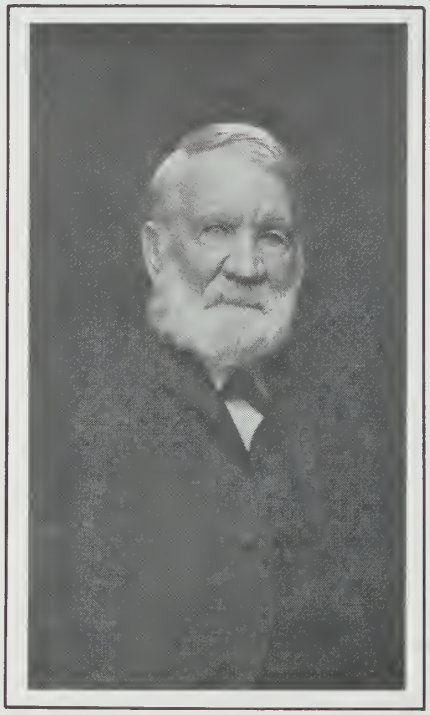
"This is a faithful life story which my sister has written of 'The man I knew best and the best man I knew.'

"He was a charter member and the last survivor of the historic group that organized the Indiana State Medical Association at Indianapolis in 1849. He practiced medicine 65 years and formally retired on his 89th birthday. He was an elder in the Presbyterian church 70 years. He was born Jan. 17, 1816, and died Dec. 9, 1913. Full of vigor and of mental and spiritual strength and understanding, he attained an unusual age and prolonged activity in which he rejoiced greatly—and when the end came, he said, 'I have no apprehension about the future.' This story of a pioneer Indiana physician is for the library of the Indiana State Medical Association.—Oct. 10, 1936. Wm. N. Wishard."

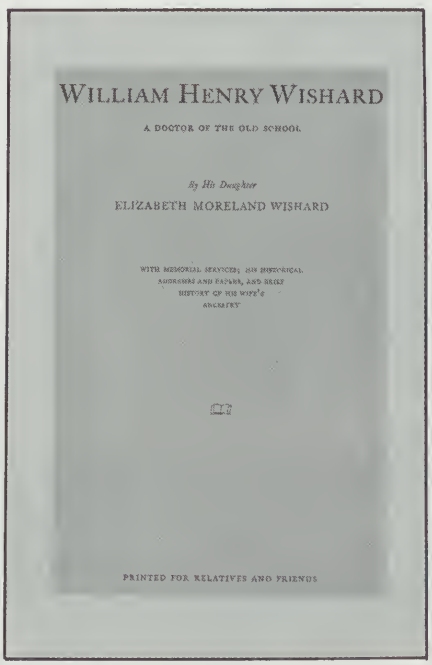
Dr. William N. Wishard (for whom Wishard Memorial Hospital at I.U.M.C. is named), the son of Dr. William H. Wishard, penned this inscription on his own 85th birthday.

The pages of the book relate that William Henry Wishard was born in Nicholas County, Kentucky, and that a few years later (1825) his family moved to Johnson County, Indiana, where William grew up to become a farmer like his father. William's early education consisted only of reading, writing and ciphering, taught mostly by his parents. He did have a limited exposure to a one-room log schoolhouse, from which he recalled this incident:

"Henry Alcorn was another early teacher. Alcorn was a tall, thin man and was possessed



of a pair of buckskin breeches. One day he came to school in the rain and, as the breeches had been badly tanned, the water soaked into them. He sat and taught for a longer time than usual, but finally essayed to get up. He



was unable to stir. The leather had hardened after the softening by the rain and was like a board. In his sitting position it had hardened to fit the posture. He said, 'Children, bring me a bucket of water to soften these breeches. I can't get up,' "

Wishard commenced the study of medicine in 1838 at the age of 22 in the office of Dr. Benjamin S. Noble (brother of Noah Noble, former Governor of Indiana). Seven years later he attended a session of lectures at the Medical College of Ohio at Cincinnati and, finally, during the winter of 1848-49 he attended a second session of lectures, at the Medical College of Indiana at LaPorte where he received the M.D. degree (now displayed in the amphitheater of the Museum).

During the Civil War Dr. Wishard spent two years as a volunteer surgeon:

"After the surrender of Vicksburg a Confederate soldier approached him with the salutation, 'I want to shake the hand of a man who bears a charmed life.' 'Why do you say that?' father inquired. 'I have deliberately shot at you every morning during these past days as I have seen you walking over the ridge to your field hospital by the short cut, but could never hit you.' 'That explains why I have heard so many bullets whizzing past my ears,' was father's rejoiner."

On the occasion of the ISMA's 50th anniversary (1899), Dr. Wishard gave a presentation of the organization's history and concluded with the admonition that the physician should ever heed the wisdom of Solomon: "A good name is rather to be chosen than great riches, and loving favor rather than silver and gold." To this he added, "I never knew a physician to fail who entered the profession well equipped in head and heart."

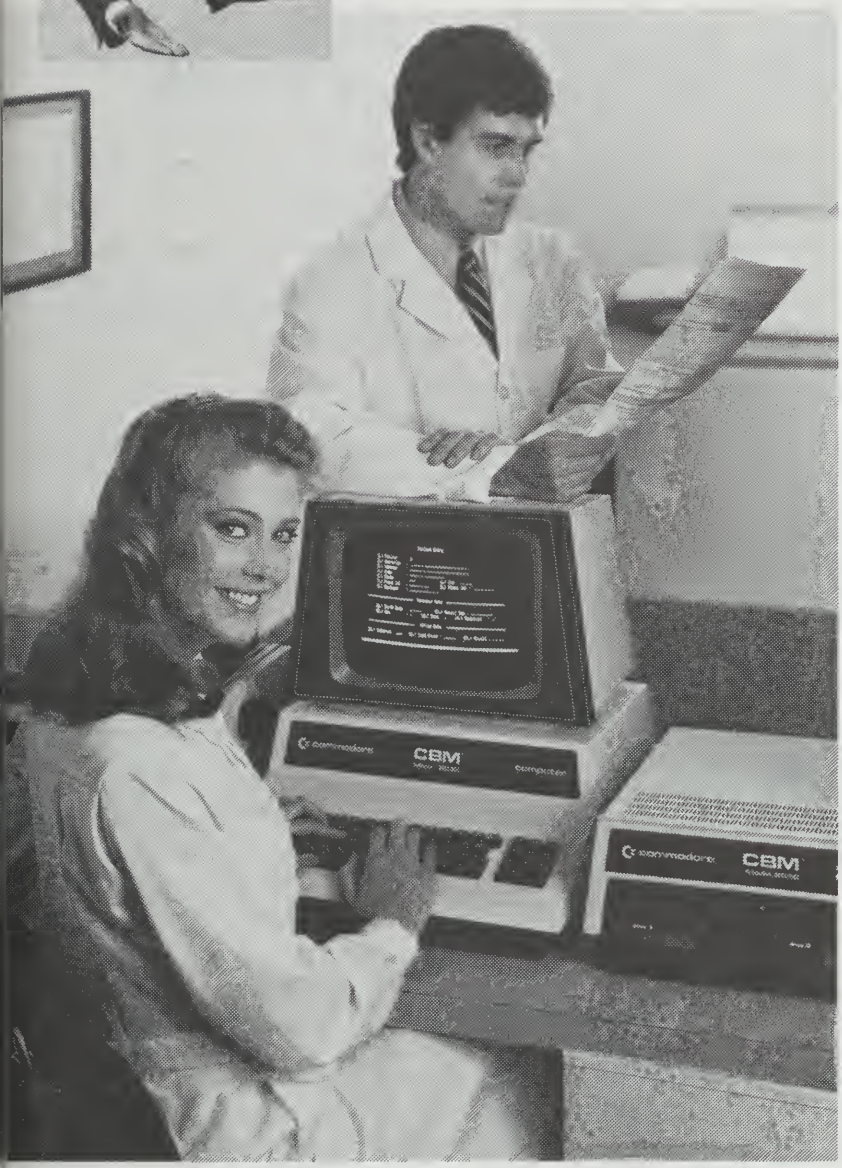
"It was the same year of his graduation, 1849, that father was present at the organization of the Indiana State Medical Society, of which he was president at the 40th anniversary and was also the last survivor of the 84 charter members."

The portrait of Dr. William Henry Wishard reproduced on the front cover was painted by T. C. Steele. It, too, is now on display at the Museum.



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EDITORIALS

More Chemotherapy Research

Chemotherapy of cancer produces a three-way conflict—cancer cells, the immune system and the chemical all have effects on each other. A fourth variable always present is the biological makeup of the patient, which may alter the conflict in mysterious ways.

Chemotherapy may lower immunity to infection. It may, also, presumably lower the patient's immunity reaction to the tumor.

Chemotherapy is, therefore, a field which deserves and is receiving research attention on all sides and all over the country. The University of Notre Dame Department of Microbiology is one of the centers well along in the tedious study of neoplastic cells and the immune system.

Dr. Ruth Neta is investigating the role of some blood proteins called lymphokines. Interferon is one of the lymphokines. Dr. Neta has observed that the research mice which produce less interferon are more susceptible to infection. She also observes some indication that an "inhibitor" to interferon is present in the blood of the more susceptible animals.

This situation may explain why some patients do not do well under treatment. Further study may develop a system by which investigation of lymphokines and other blood proteins may lead the way to preservation of the immunities while enjoying the antitumor effects of chemicals.

Dr. Symour Schlager's research is looking into the interactions of cancer cells and immune responses by studying white blood cells and antibody molecules.

Schlager has found that cancer cells produce a fat molecule that protects the surface of the cell and makes it resistant to damage by the immune system. He has been able, in test tube experiments, to stimulate white cells to a more effective attack on neoplastic cells. He is studying the basic mechanism by which the immune system kills tumor cells in order more effectively to stimulate white cells.

He reports that the method is especially effective with macrophages. This is a good development since macrophages attack tumors as foreign cells. Other white cells are only effective against specific types of tumor cells.

The quest for control of malignancy continues. The final answer will probably not be of universal application; each type of neoplastic abnormality will probably require its own special control mechanism. The key to the whole problem will be complete knowledge of enzymes and other proteins.

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Child Molesters

Attempts to protect children from sexual abuse by telling them to be suspicious of strangers will not be effective in most instances. In a recent study reported in *Pediatrics,* only 18% of abusers were strangers. A majority of the attacks were by persons, all of whom were male, who were well known by the victim.

The researchers recommend children be taught that "sexual advances from anyone, including relatives, are inappropriate and should be reported to a trusted adult."

A further recommendation was to the effect that, when a responsible adult is told by the child of sexual abuse, prompt remedial action should ensue immediately. This will sound like advice so obvious as to not merit mentioning—however, the study revealed numerous instances in which no action was taken when incestuous attacks were reported.

The researchers also recommended that programs designed to prevent sexual assault be included in high school curricula.

FDA Antibiotic Certification

Certification of antibiotics by FDA, a program of 35 years continuance, will be phased out by October 1982. Since 1945 the agency has checked purity and potency of every batch of antibiotics produced. However, manufacturing quality control and manufacturing standards are now sufficient to assure purity and effectiveness without independent testing.

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EDITORIALS

New Hepatitis Vaccine

A vaccine against hepatitis B virus will probably be available by this summer.

FDA Commissioner Arthur Hull Hayes recently held a special press conference to announce approval of the new vaccine, which will be made by Merck Sharp and Dohme. The original investigation, discovery of the vaccine, and development of large-scale manufacturing methods has occupied over 10 years. Clinical trials started in 1975 among Merck executives.

Dr. Hayes, in introductory remarks, outlined the gravity of hepatitis due to the B type virus. There are 200,000 to 300,000 new infections each year. Between 100 and 200 deaths result each year from hepatitis B. Thousands of those who recover suffer liver damage of varying degrees. There are some 400,000 chronically infected carriers to transmit the disease.

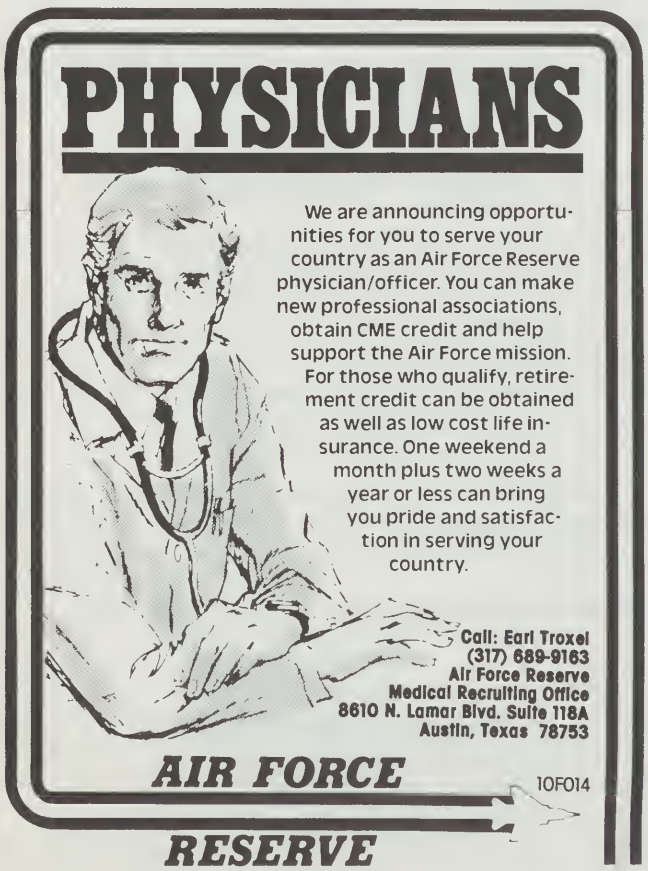
In addition to Merck researchers, many scientists from the NIH, FDA, New York University, CDC, Red Cross, and the Institute for Cancer Research have contributed to the development of the manufacturing process, which is described as unprecedented in complexity for a vaccine.

The raw material is human plasma. Merck has designed and constructed a special facility, consisting of a series of sterile laboratories in each of which a separate stage of the process is accomplished.

Immunization will be achieved by a course of three injections, the cost estimated at between $75 and $120. This is an expensive immunization but if only high risk patients receive the vaccine the financial savings due to control of the disease will be enormous. The Centers for Disease Control estimate the cost of hospital treatment of hepatitis B, at the minimum, is $4.3 million per week.

Search for less expensive methods, such as recombinant DNA, are already in progress.

Recommendations for use of the vaccine originally are limited to health care and laboratory workers, institutionalized mentally handicapped, hemodialysis staff workers, contacts with known carriers, some military personnel and people with numerous sex contacts.



LETTERS

Student Loan Defaulters

The writer sent the following letter to *The Indianapolis News* in December 1981. He has given permission for THE JOURNAL to publish it.

I wish to comment on your editorial concerning medical student lending which was printed in the newspaper on December 14, 1981. I, too, would be concerned with delinquency loan rates expressed by Senator Percy's committee. Financial responsibility is important for all citizens and certainly a professional's behavior should be exemplary.

Indiana University School of Medicine students and graduates do NOT fall into the statistic quoted: "Studies showed that at 16 medical schools between 20-60% of the loans were at least three months overdue." The Indiana University School of Medicine delinquency rate is 2.4%. A third of the students represented in this 2.4% are students who withdrew or were dismissed from medical school before acquiring an M.D. degree. I do not wish to imply that the 2.4% is an acceptable statistic; I would rather it be 0%. The Indiana University School of Medicine has and will continue to strive toward the goal of 0%.

An appropriate means for acquiring an education should be available to those qualified and interested in spite of mounting costs. The educational costs of today are beginning to prevent and inhibit some students who, despite their qualification and interest, cannot and will not incur the heavy indebtedness required by a lengthy medical education. If such a trend should continue, society will lose.

James E. Carter, M.D.
Associate Dean
Student and Curricular Affairs

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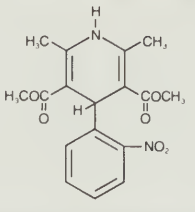
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nifedipine

For Oral Use

DESCRIPTION: PROCARDIA (nifedipine) is an antianginal drug belonging to a new class of pharmacological agents, the calcium channel blockers. Nifedipine is 3,5-pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(2-nitrophenyl)-, dimethyl ester, $C_{17}H_{18}N_2O_6$, and has the structural formula:



Nifedipine is a yellow crystalline substance, practically insoluble in water but soluble in ethanol. It has a molecular weight of 346.3. PROCARDIA CAPSULES are formulated as soft gelatin capsules for oral administration each containing 10 mg nifedipine.

CLINICAL PHARMACOLOGY: PROCARDIA (nifedipine) is a calcium ion influx inhibitor (slow channel blocker or calcium ion antagonist) and inhibits the transmembrane influx of calcium ions into cardiac muscle and smooth muscle. The contractile processes of cardiac muscle and vascular smooth muscle are dependent upon the movement of extracellular calcium ions into these cells through specific ion channels. PROCARDIA selectively inhibits calcium ion influx across the cell membrane of cardiac muscle and vascular smooth muscle without changing serum calcium concentrations.

Mechanism of Action: The precise means by which this inhibition relieves angina has not been fully determined, but includes at least the following two mechanisms:

1) Relaxation and prevention of coronary artery spasm: PROCARDIA dilates the main coronary arteries and coronary arterioles, both in normal and ischemic regions, and is a potent inhibitor of coronary artery spasm, whether spontaneous or ergonovine-induced. This property increases myocardial oxygen delivery in patients with coronary artery spasm, and is responsible for the effectiveness of PROCARDIA in vasospastic (Prinzmetal's or variant) angina. Whether this effect plays any role in classical angina is not clear, but studies of exercise tolerance have not shown an increase in the maximum exercise rate-pressure product, a widely accepted measure of oxygen utilization. This suggests that, in general, relief of spasm or dilation of coronary arteries is not an important factor in classical angina.

2) Reduction of oxygen utilization: PROCARDIA regularly reduces arterial pressure at rest and at a given level of exercise by dilating peripheral arterioles and reducing the total peripheral resistance (afterload) against which the heart works. This unloading of the heart reduces myocardial energy consumption and oxygen requirements and probably accounts for the effectiveness of PROCARDIA in chronic stable angina.

Pharmacokinetics and Metabolism: PROCARDIA is rapidly and fully absorbed after oral administration. The drug is detectable in serum 10 minutes after oral administration, and peak blood levels occur in approximately 30 minutes. It is highly bound by serum proteins. PROCARDIA is extensively converted to inactive metabolites and approximately 80% of PROCARDIA and metabolites are eliminated via the kidneys. The half-life of nifedipine in plasma is approximately two hours. There is no information on the effects of renal or hepatic impairment on excretion or metabolism of PROCARDIA.

Hemodynamics: Like other slow channel blockers, PROCARDIA exerts a negative inotropic effect on isolated myocardial tissue. This is rarely, if ever, seen in intact animals or man, probably because of reflex responses to its vasodilating effects. In man, PROCARDIA causes decreased peripheral vascular resistance and a fall in systolic and diastolic pressure, usually modest (5–10 mm Hg systolic), but sometimes larger. There is usually a small increase in heart rate, a reflex response to vasodilation. Measurements of cardiac function in patients with normal ventricular function have generally found a small increase in cardiac index without major effects on ejection fraction, left ventricular end diastolic pressure (LVEDP) or volume (LVEDV). In patients with impaired ventricular function, most acute studies have shown some increase in ejection fraction and reduction in left ventricular filling pressure.

Electrophysiologic Effects: Although, like other members of its class, PROCARDIA decreases sinoatrial node function and atrioventricular conduction in isolated myocardial preparations, such effects have not been seen in studies in intact animals or in man. In formal electrophysiologic studies, predominantly in patients with normal conduction systems, PROCARDIA has had no tendency to prolong atrioventricular conduction, prolong sinus node recovery time, or slow sinus rate.

INDICATIONS AND USAGE: I. Vasospastic Angina: PROCARDIA (nifedipine) is indicated for the management of vasospastic angina confirmed by any of the following criteria: 1) classical pattern of angina at rest accompanied by ST segment elevation, 2) angina or coronary artery spasm provoked by ergonovine, or 3) angiographically demonstrated coronary artery spasm. In those patients who have had angiography, the presence of significant fixed obstructive disease is not incompatible with the diagnosis of vasospastic angina, provided that the above criteria are satisfied. PROCARDIA may also be used where the clinical presentation suggests a possible vasospastic component but where vasospasm has not been confirmed, e.g., where pain has a variable threshold on exertion or in unstable angina where electrocardiographic findings are compatible with intermittent vasospasm, or when angina is refractory to nitrates and/or adequate doses of beta blockers.

II. Chronic Stable Angina (Classical Effort-Associated Angina): PROCARDIA is indicated for the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or organic nitrates or who cannot tolerate those agents.

In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in these patients are incomplete.

Controlled studies in small numbers of patients suggest concomitant use of PROCARDIA and beta-blocking agents may be beneficial in patients with chronic stable angina, but available information is not sufficient to predict with confidence the effects of concurrent treatment, especially in patients with compromised left ventricular function or cardiac conduction abnormalities. When introducing such concomitant therapy, care must be taken to monitor blood pressure closely since severe hypotension can occur from the combined effects of the drugs. (See Warnings.)

CONTRAINDICATIONS: Known hypersensitivity reaction to PROCARDIA.

WARNINGS: Excessive Hypotension: Although in most patients, the hypotensive effect of PROCARDIA is modest and well tolerated, occasional patients have had excessive and poorly tolerated hypotension. These responses have usually occurred during initial titration or at the time of subsequent upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.

Increased Angina/Beta Blocker Withdrawal: Occasional patients have developed well documented increased frequency, duration or severity of angina on starting PROCARDIA or at the time of dosage increases. The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate alone.

Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with increased angina, probably related to increased sensitivity to catecholamines. Initiation of PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it by provoking reflex catecholamine release. There have been occasional reports of increased angina in a setting of beta blocker withdrawal and PROCARDIA initiation. It is important to taper beta blockers if possible, rather than stopping them abruptly before beginning PROCARDIA.

Congestive Heart Failure: Rarely, patients usually receiving a beta blocker have developed heart failure after beginning PROCARDIA. Patients with tight aortic stenosis may be at greater risk for such an event, as the unloading effect of PROCARDIA would be expected to be of less benefit to these patients, owing to their fixed impedance to flow across the aortic valve.

PRECAUTIONS: General: Hypotension: Because PROCARDIA decreases peripheral vascular resistance, careful monitoring of blood pressure during the initial administration and titration of PROCARDIA is suggested. Close observation is especially recommended for patients already taking medications that are known to lower blood pressure. See Warnings.

Peripheral edema: Mild to moderate peripheral edema, typically associated with arterial vasodilation and not due to left ventricular dysfunction, occurs in about one in ten patients treated with PROCARDIA. This edema occurs primarily in the lower extremities and usually responds to diuretic therapy. With patients whose angina is complicated by congestive heart failure, care should be taken to differentiate this peripheral edema from the effects of increasing left ventricular dysfunction.

Drug interactions: Beta-adrenergic blocking agents: See Indications and Warnings. Experience in over 1400 patients in a non-comparative clinical trial has shown that concomitant administration of PROCARDIA and beta-blocking agents is usually well tolerated, but there have been occasional literature reports suggesting that the combination may increase the likelihood of congestive heart failure, severe hypotension or exacerbation of angina.

Long-acting nitrates: PROCARDIA may be safely co-administered with nitrates, but there have been no controlled studies to evaluate the antianginal effectiveness of this combination.

Carcinogenesis, mutagenesis, impairment of fertility: Nifedipine was administered orally to rats for two years and was not shown to be carcinogenic. When given to rats prior to mating, nifedipine caused reduced fertility at a dose approximately 30 times the maximum recommended human dose. *In vivo* mutagenicity studies were negative.

Pregnancy: Pregnancy category C. Nifedipine has been shown to be teratogenic in rats when given in doses 30 times the maximum recommended human dose. Nifedipine was embryotoxic (increased fetal resorptions, decreased fetal weight, increased stunted forms, increased fetal deaths, decreased neonatal survival) in rats, mice and rabbits at doses of from 3 to 10 times the maximum recommended human dose. In pregnant monkeys, doses 2/3 and twice the maximum recommended human dose resulted in small placentas and underdeveloped chorionic villi. In rats, doses three times the maximum human dose and higher caused prolongation of pregnancy. There are no adequate and well-controlled studies in pregnant women. PROCARDIA should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

ADVERSE REACTIONS: In multiple-dose U.S. and foreign-controlled studies in which adverse reactions were reported spontaneously, adverse effects were frequent but generally not serious and rarely required discontinuation of therapy or dosage adjustment. Most were expected consequences of the vasodilator effects of PROCARDIA.

Adverse Effect	PROCARDIA (%) (N = 226)	Placebo (%) (N = 235)
Dizziness, light-headedness, giddiness	27	15
Flushing, heat sensation	25	8
Headache	23	20
Weakness	12	10
Nausea, heartburn	11	8
Muscle cramps, tremor	8	3
Peripheral edema	7	1
Nervousness, mood changes	7	4
Palpitation	7	5
Dyspnea, cough, wheezing	6	3
Nasal congestion, sore throat	6	8

There is also a large uncontrolled experience in over 2100 patients in the United States. Most of the patients had vasospastic or resistant angina pectoris, and about half had concomitant treatment with beta-adrenergic blocking agents. The most common adverse events were the same ones seen in the controlled trials, with dizziness or light-headedness, peripheral edema, nausea, weakness, headache and flushing each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%. Syncopal episodes did not recur with reduction in the dose of PROCARDIA or concomitant antianginal medication. Very rarely, introduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due to associated hypotension.

Several of these side effects appear to be dose related. Peripheral edema occurred in about one in 25 patients at doses less than 60 mg per day and in about one patient in eight at 120 mg per day or more. Transient hypotension, generally of mild to moderate severity and seldom requiring discontinuation of therapy, occurred in one of 50 patients at less than 60 mg per day and in one of 20 patients at 120 mg per day or more.

In addition, 2% or fewer of patients reported the following: **Respiratory:** Nasal and chest congestion, shortness of breath. **Gastrointestinal:** Diarrhea, constipation, cramps, flatulence. **Musculoskeletal:** Inflammation, joint stiffness, muscle cramps. **CNS:** Shakiness, nervousness, jitteriness, sleep disturbances, blurred vision, difficulties in balance. **Other:** Dermatitis, pruritus, urticaria, fever, sweating, chills, sexual difficulties.

In addition, more serious adverse events were observed, not readily distinguishable from the natural history of the disease in these patients. It remains possible, however, that some or many of these events were drug related. Myocardial infarction occurred in about 4% of patients and congestive heart failure or pulmonary edema in about 2%. Ventricular arrhythmias or conduction disturbances each occurred in fewer than 0.5% of patients.

In a subgroup of over 1000 patients receiving PROCARDIA with concomitant beta blocker therapy, the pattern and incidence of adverse experiences was not different from that of the entire group of PROCARDIA treated patients (see **Precautions**).

In a subgroup of patients with a diagnosis of congestive heart failure as well as angina, dizziness or light-headedness, peripheral edema, headache or flushing each occurred in one in eight patients. Hypotension occurred in about one in 20 patients. Syncope occurred in approximately one patient in 250. Myocardial infarction or symptoms of congestive heart failure each occurred in about one patient in 15. Atrial or ventricular dysrhythmias each occurred in about one patient in 150.

Laboratory tests: Rare, mild to moderate, transient elevations of enzymes such as alkaline phosphatase, CK, LDH, SGOT, and SGPT have been noted, and a single incident of significantly elevated transaminases and alkaline phosphatase was seen in a patient with a history of gall bladder disease after about eleven months of nifedipine therapy. The relationship to PROCARDIA therapy is uncertain. These laboratory abnormalities have already been associated with clinical symptoms. Cholestasis, possibly due to PROCARDIA therapy, has been reported twice in the extensive world literature.

OVERDOSAGE: Although there is no well documented experience with PROCARDIA overdosage, available data suggest that gross overdosage could result in excessive peripheral vasodilation with subsequent marked and probably prolonged systemic hypotension. Clinically significant hypotension due to PROCARDIA overdosage calls for active cardiovascular support including monitoring of cardiac and respiratory function, elevation of extremities, and attention to circulating fluid volume and urine output. A vasoconstrictor (such as norepinephrine) may be helpful in restoring vascular tone and blood pressure, provided that there is no contraindication to its use. Clearance of PROCARDIA would be expected to be prolonged in patients with impaired liver function. Since PROCARDIA is highly protein-bound, dialysis is not likely to be of benefit.

DOSAGE AND ADMINISTRATION: The dosage of PROCARDIA needed to suppress angina and that can be tolerated by the patient must be established by titration. Excessive doses can result in hypotension.

The starting dose is one 10 mg capsule, swallowed whole, 3 times/day. The usual effective dose range is 10–20 mg three times daily. Some patients, especially those with evidence of coronary artery spasm, respond only to higher doses, more frequent administration, or both. In such patients, doses of 20–30 mg three or four times daily may be effective. Doses above 120 mg daily are rarely necessary. More than 180 mg per day is not recommended.

In most cases, PROCARDIA titration should proceed over a 7–14 day period so that the physician can assess the response to each dose level and monitor the blood pressure before proceeding to higher doses.

If symptoms so warrant, titration may proceed more rapidly provided that the patient is assessed frequently. Based on the patient's physical activity level, attack frequency, and sublingual nitroglycerin consumption, the dose of PROCARDIA may be increased from 10 mg t.i.d. to 20 mg t.i.d. and then to 30 mg t.i.d. over a three-day period.

In hospitalized patients under close observation, the dose may be increased in 10 mg increments over four to six-hour periods as required to control pain and arrhythmias due to ischemia. A single dose should rarely exceed 30 mg.

No "rebound effect" has been observed upon discontinuation of PROCARDIA. However, if discontinuation of PROCARDIA is necessary, sound clinical practice suggests that the dosage should be decreased gradually with close physician supervision.

Co-Administration with Other Antianginal Drugs: Sublingual nitroglycerin may be taken as required for the control of acute manifestations of angina, particularly during PROCARDIA titration. See **Precautions, Drug Interactions** for information on co-administration of PROCARDIA with beta blockers or long-acting nitrates.

HOW SUPPLIED: Each orange, soft gelatin PROCARDIA Capsule contains 10 mg of nifedipine. PROCARDIA Capsules are supplied in amber glass bottles of 100 capsules (NDC 0069-2600-66).

The capsules should be protected from light and moisture and stored at controlled room temperature 59° to 77°F (15° to 25°C) in the manufacturer's original container.

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Issued January 1982

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S.L.O.P.
Saving the Language of the Purist

Guest Editorial

JOE N. JARRETT, M.D.
Associate Editor
W. Virginia Medical Journal

LANGUAGES have always shown gradual changes in the meaning of words and phrases, and English is no exception. The Germanic and Romance languages have contributed many words directly to English, and some words now convey meanings quite opposite the ones originally intended. But the things that are happening to English with the "now" generation of mass media speakers and writers are not just evolutionary. They are revolutionary because instantaneous communication makes for instantaneous imitation in the far-flung corners of the listening world. Hence a need for this editorial about S.L.O.P. (Saving the Language of the Purist).

Among many reasons for the abandonment of precise English is the general lack of pride in teaching and learning that has given us a generation of writers and speakers who not only failed to learn composition and exposition, but who hardly learned the basic three R's. In addition, the notion that old methods and ideas are inadequate and irrelevant has taken firm hold; and it has been a short step from that conviction to its corollary that "different is better".

As a result, there has been a rapid trend toward the introduction of words and phrases into uses that differ markedly from the intent of earlier users, and the invention of new words from old. Many of these new expressions have taken such instant and universal hold that they already have become cliches in their own right. Some that come easily to mind: cost-effective; doing one's thing; impact (verb); point in time; as far as; what it's all about; bottom line; continuum; early on; eck-setera (pronunciation of etc.); meaningful; up front; meet the needs; identity crisis; convince (meaning to persuade).

Bureaucratic jargon is most fascinating. Each organization seems to develop its own vocabulary but there also are generally-used cliches. Everything is "structured" and submitted to the process of "prioritization" by the "educationist" for whom the "bottom line" is the "interfacing" of the "data" with the "newness" "criteria" in an "appropriateness review" within the "time frame" of the "current" "continuum". This may be thought of as a "learning experience"! And there are single words, such as "like" to mean "uh" or "for example"; "hey", as in "I thought, hey! this isn't what I meant"; "basically" meaning fundamentally or ideally; "no way" meaning impossible; to "impact", using that noun as a verb.

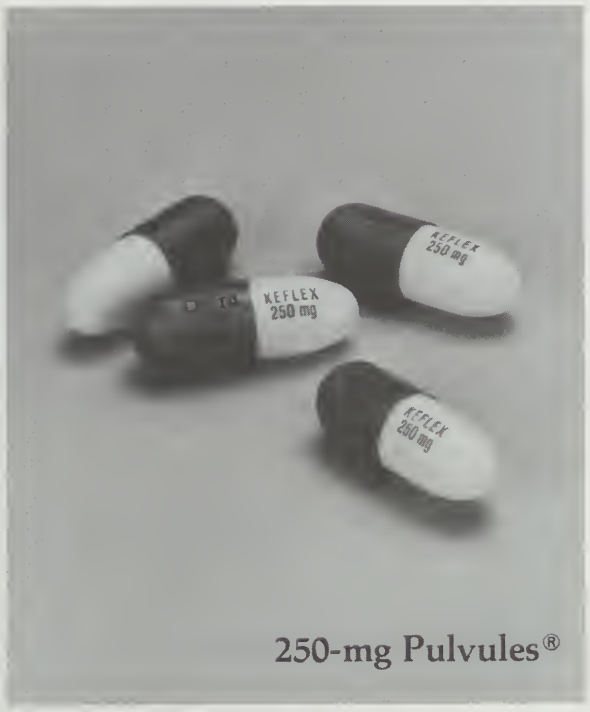
As a matter of interest in the invention of new words, one might wonder at their origins as well as the intent of the originator. A case in point: A recent survey which was reported in *Family Magazine* indicated that only 16 per cent of women preferred to be called Ms. rather than Mrs. or Miss; 81 per cent preferred Mrs., and 62 per cent of single women preferred Miss. Why the widespread use of Ms?

Then there is the reading of the written word from news or other copy (by everyone in the TV or radio station at some time or other) with the inexplicable emergence of the now almost universal characteristic of emphasizing prepositions such as of, on, and to, as in "the prisoner confessed *TO* the crime *ON* the street nearest *TO* the house". And don't forget code words such as "bit", as in the whole election "bit" is for the birds.

Poorly organized, expounded and composed writing on medical topics is being seen more and more frequently by the editorial staff of your *Journal*—and a substantial percentage of papers is rejected for those and other reasons. The incomplete grasp of basic composition, grammar and spelling becomes ever more apparent in manuscripts submitted. One may be permitted to hope (not "hopefully") that the standards of excellence in speaking and writing will some day be re-attained. Meanwhile, your editorial staff will pursue its goal of excellence in construction as well as content in your favorite medical journal.

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On Generics and Substitution

Guest Editorial

L. A. ARATA, M.D.
Shelbyville

THE THOUGHT processes (or lack of them) on the part of some of our political leaders and "consumer advocates" are a source of real amusement and laughs because of their ridiculousness. Right now, it seems that generic drugs are their current "Hula-Hoop" fad.

I have no objection to someone saving a penny or a dollar here or there; I do so myself when I have a chance; I have no objection to trying to help someone save money; I would be utterly happy to see some of my taxpaid money saved—particularly the $7 billion allegedly wasted by the bungling bureaucratic Department of Health, Education, and Welfare so ineptly operated by our Great White Father in Washington.

To date, I have not had a single patient request that I prescribe generically for him. It seems that someone other than the patient is beating the drums for this fad. It seems obvious that people, other than patients, are trying diligently to control the medications that my patients use; are trying to make decisions for other people; are trying to usurp the right of the patient and the doctor to do what the patient and his doctor feel is in the patient's best interest.

Generics, of course, are not limited to prescription drugs. Who amongst these drum-beaters would buy his ground beef for home consumption at Ptomaine Tom's Meat Market instead of Sanitary Susan's Market? Which of these Bureaucratic Bunglers would organize his department's mistresses into a "mistress pool," and select his companion generically from the pool? Which of these people lovers would select his children generically from the community's children, and take and love different children each day or month? Which of these do-gooders selected a mate for himself or herself generically?

Children, mates, mistresses, and meats are all a larger expense to those who need (or want) them than are prescription drugs. When these generic crusaders start their crusade for generics in these fields, I will be more willing to believe their sincerity. Until then, I shall continue to have my prescription blanks printed with the note: Pharmacist, substitute at your own risk.

Malpractice Suit Barred

A MALPRACTICE ACTION against a physician and a hospital was barred by the statute of limitations, an Indiana appellate court has ruled.

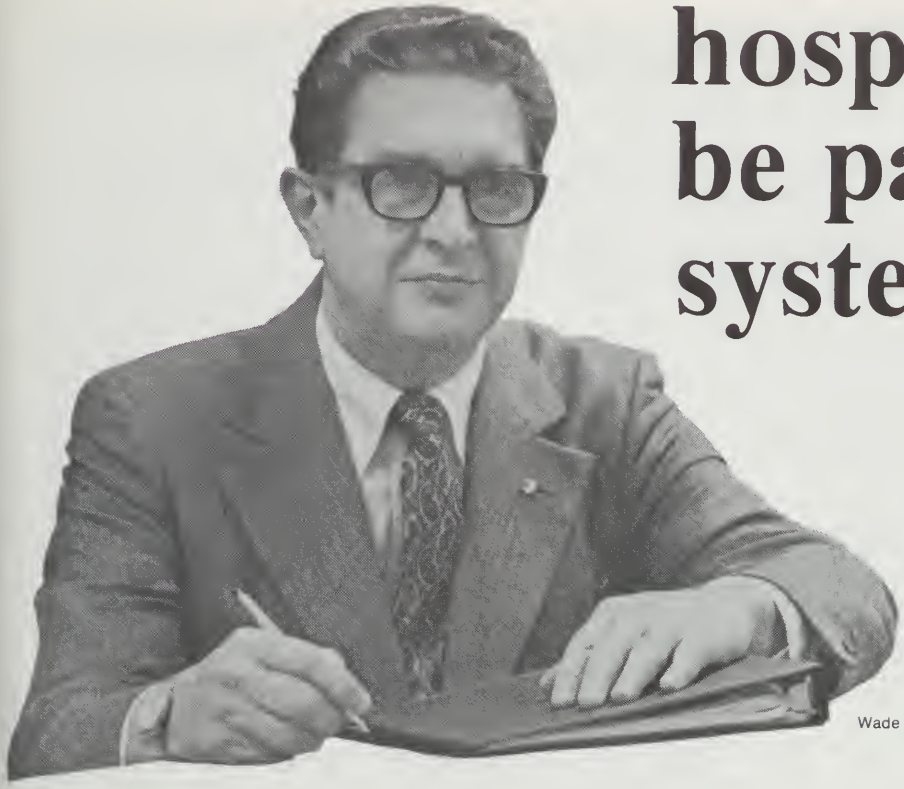
A patient was admitted to a hospital for removal of warts and tumors under her arm. A second operation was performed on March 25, 1977, and the physician last treated the patient two days later. The patient subsequently claimed that she suffered a nervous disorder as a result of the physician's treatment. The patient and her husband met with an attorney in March 1977 to discuss the possibility of a malpractice action. They filed a complaint with the Department of Insurance on February 5, 1980. A trial court ruled that the action was barred by the statute of limitations in the Medical Malpractice Act.

On appeal, the patient argued that the Medical Malpractice Act and its statute of limitations were unconstitutional. The appellate court noted that the Indiana Supreme Court had recently found that the Act was an attempt to preserve medical treatment and control malpractice insurance costs. The Act did not violate the equal protection clause because the limitations period was rationally related to maintaining the availability of sufficient medical treatment. The two-year limitation period was sufficient time for the patient to pursue her malpractice action, the court said. The limitation of malpractice claims to two years from the "act, omission, or neglect" was a reasonable method to satisfy the legislative purpose underlying the Act, the court concluded.

The trial court's judgment was affirmed.—*Carmichael v. Silbert,* 422 N.E.2d 1330 (Ind. Ct. of App., July 14, 1981)

Courtesy of *The Citation,* Dec. 1, 1981.

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* Twenty-nine percent of the nation's general community hospitals were in centrally managed multi-hospital systems in 1980. And this number is multiplying rapidly. (April 1981 issue, *Modern Healthcare)*

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Sen. Dan Quayle (R)—254 Russell Senate Office Building, Washington, D.C. 20510; Telephone: 202-224-5623; Committees: Armed Services Committee; Budget Committee; Labor and Human Resources Committee.

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Rep. Elwood H. (Bud) Hillis (R-5th)—2336 Rayburn House Office Building, Washington, D.C. 20515; Telephone: 202-225-5037; Committees: Armed Services Committee; Veterans' Affairs Committee.

Rep. David W. Evans (D-6th)—438 Cannon House Office Building, Washington, D.C. 20515; Telephone: 202-225-2276; Committees: Banking, Finance and Urban Affairs Committee; Government Operations Committee; Select Committee on Aging.

Rep. John T. Myers (R-7th)—2301 Rayburn House Office Building, Washington, D.C. 20515; Telephone: 202-225-5805; Committees: Appropriations Committee; Standards of Official Conduct (Ethics Committee).

Rep. H. Joel Deckard (R-8th)—125 Cannon House Office Building, Washington, D.C. 20515; Telephone: 202-225-4636; Committees: Government Operations Committee; Public Works and Transportation Committee.

Rep. Lee H. Hamilton (D-9th)—2187 Rayburn House Office Building, Washington, D.C. 20515; Telephone: 202-225-5315; Committees: Foreign Affairs Committee; Select Committee on Intelligence; Joint Economic Committee.

Rep. Philip R. Sharp (D-10th)—2452 Rayburn House Office Building, Washington, D.C. 20515; Telephone: 202-225-3021; Committees: Energy and Commerce Committee; Interior and Insular Affairs Committee.

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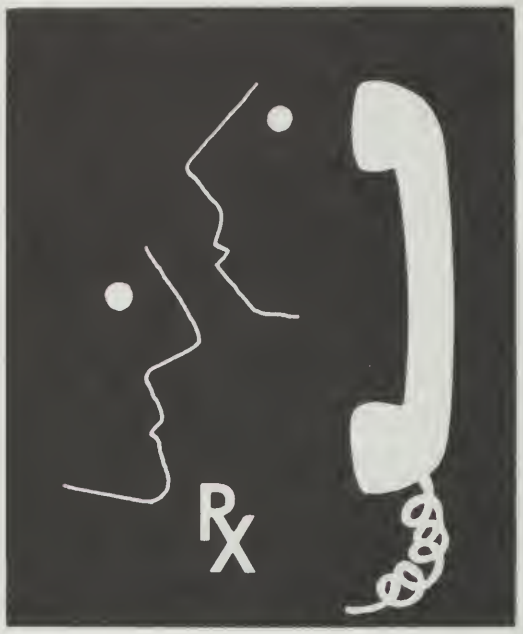
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DOCTORS & DRUG ABUSERS



This is the third in a series designed to highlight the personal experiences of physicians in dealing with drug addicts. Our thanks to John J. Gallinatti, M.D., Merrillville, Ind., for this month's report. Please note that your experiences are solicited and will be considered even if they are submitted on an anonymous basis.

I went to work on a 24-hour shift at a nearby community's Emergency Department at 11:30 p.m. I was called to talk on the phone with a western Texas physician. He requested that I give a patient, who would appear at our Emergency Room in one hour, an oral dose of Dilaudid, for the relief of post-operative pain, and a prescription for "at least another 75 or 100 tablets more." The patient was supposedly traveling from Texas to his home state of New York.

I requested that when I saw the patient and the x-rays he was to bring with him (which supposedly showed two Stineman Pins in a recent left-ankle fracture repair) that I needed the "Texas physician's" area code and office and residence telephone numbers so that I might be able to contact him after seeing the patient.

The patient was supposedly discharged from a Texas hospital, and the "Texas doctor" had performed the placement of two Stineman Pins in his fractured left ankle. The "Texas doctor" consented to leave his name and telephone numbers with me. He also said it was the early morning hours in western Texas and that the patient was a major stockholder in a stock exchange house in New York City.

I became suspicious because the time changes the doctor described did not jibe with the time zone changes across the country. Therefore, I called the night office of the Texas Rangers in Dallas to try to ascertain if such a doctor existed. The Ranger on duty surveyed area codes and physicians telephone numbers in the entire state of Texas. It was his opinion that the telephone call made to our Emergency Department was probably bogus, and probably not made from Texas. The Ranger could not find a telephone listing for any Texas doctor with the name given by the bogus caller.

I alerted my Emergency Room nursing staff to handle this patient carefully, when and if he arrived, and to let me know of his arrival so that perhaps the local county sheriff's office could be notified.

Fortunately, the patient never showed up and we were spared an embarrassing situation. The "patient" failed to get any Dilaudid from us. I read in the local newspaper (two or three days later) that the "fracture patient" was arrested in a near-by town for having forged physicians' signatures to bogus prescriptions. An alert pharmacist knew the handwriting and that the names on the prescription were probably forged. The "patient" was later convicted in court and had a long history of Dilaudid addiction. ("Street value" of Dilaudid was $75 per pill, the Texas Ranger had told me.)

Perhaps "beware of the patient who knows exactly what narcotic that you, the physician, should prescribe" is the timely moral the Hoosier physician should always bear in mind.

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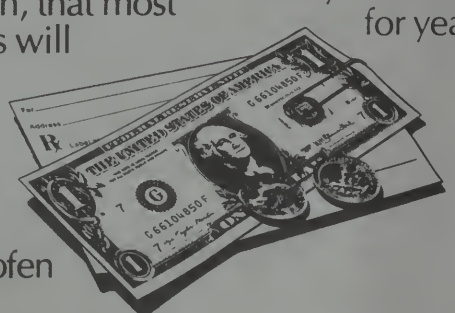
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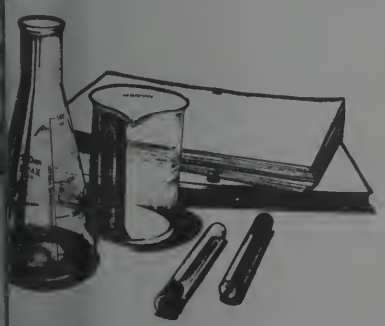
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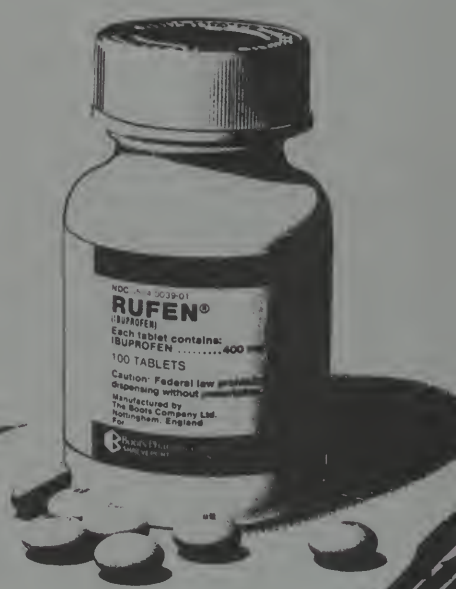
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To ensure that your patients receive the benefits of the Rufen program, *be sure to specify* "D.A.W.," "No Sub," or "Medically Necessary," as required by the laws of your state.

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INDICATIONS AND USAGE: Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in the long-term management of these diseases. Safety and effectiveness have not been established for Functional Class IV rheumatoid arthritis.

Relief of mild to moderate pain.

CONTRAINDICATIONS: Patients hypersensitive to ibuprofen, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory drugs (see WARNINGS).

WARNINGS: Anaphylactoid reactions have occurred in patients hypersensitive to aspirin (see CONTRAINDICATIONS). Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration, perforation, or gastrointestinal bleeding can end fatally; however, an association has not been established. Rufen should be given under close supervision to patients with a history of upper gastrointestinal tract disease, and only after consulting the ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be attempted. If Rufen must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

PRECAUTIONS: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If developed, discontinue Rufen and administer an ophthalmologic examination.

Fluid retention and edema have been associated with Rufen; caution should be used in patients with a history of cardiac decompensation.

Rufen can inhibit platelet aggregation and prolong bleeding time. Use with caution in patients with intrinsic coagulation defects and those taking anticoagulants.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy this therapy should be tapered slowly when adding Rufen.

DRUG INTERACTION: *Coumarin-type anticoagulants.* The physician should be cautious when administering Rufen to patients on anticoagulants.

Aspirin. Concomitant use may decrease Rufen blood levels.

PREGNANCY AND NURSING MOTHERS: Rufen should not be taken during pregnancy nor by nursing mothers.

ADVERSE REACTIONS

Incidence greater than 1%

Gastrointestinal: The most frequent adverse reaction is gastrointestinal (4% to 16%). Includes nausea*, epigastric pain*, heartburn*, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence). **Central Nervous System:** dizziness*, headache, nervousness. **Dermatologic:** rash* (including maculopapular type), pruritus. **Special Senses:** tinnitus. **Metabolic:** decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: gastric or duodenal ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** depression, insomnia. **Dermatologic:** vesiculobullous eruptions, urticaria, erythema multiforme. **Special Senses:** amblyopia (see PRECAUTIONS). **Hematologic:** leukopenia, decreased hemoglobin and hematocrit. **Cardiovascular:** congestive heart failure in patients with marginal cardiac function, elevated blood pressure.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** paresthesias, hallucinations, dream abnormalities. **Dermatologic:** alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** gynecomastia, hypoglycemia. **Cardiovascular:** arrhythmias (Sinus tachycardia, bradycardia, and palpitations). **Renal:** decreased creatinine clearance, polyuria, azotemia.

OVERDOSAGE: Acute overdosage, the stomach should be emptied. Rufen is acidic and excreted in the urine alkaline diuresis may benefit.

DOSAGE AND ADMINISTRATION: Rheumatoid arthritis and osteoarthritis, including flareups of chronic disease: Suggested dosage 400 mg t.i.d. or q.i.d.

Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain. Do not exceed 2,400 mg per day.

CAUTION: Federal law prohibits dispensing without prescription.

Boots Pharmaceuticals, Inc.
Shreveport, Louisiana 71106

Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

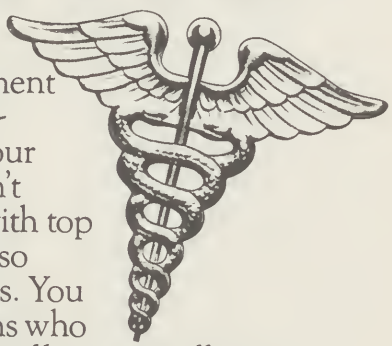
Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	ORINASE	ORNADE
Category:	Antidiabetic	Decongestant & Antihistamine
Brand Name:	Orinase, Upjohn	Ornade, SKF
Generic Name:	Tolbutamide	Phenylpropanolamine & Chlorpheniramine
Dosage Forms:	Tablets	Sustained release capsules

	PHENYLZIN	PHENELZINE
Category:	Ophthalmic Decongestant	Antidepressant
Brand Name:	Phenylzin, SMP	Nardil, Warner-Chilcott
Generic Name:	Phenylephrine HC1 & Zinc Sulfate	Phenelzine Sulfate
Dosage Forms:	Ophthalmic Sol.	Tablets

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COCHLEAR IMPLANTS: An Auditory Prosthesis for the Deaf

RICHARD T. MIYAMOTO, M.D.
SUSAN K. GOSSETT, R.N.
GARY L. GROOM, Ph.D.
MARJORIE L. KIENLE, M.Ed.
MOLLY L. POPE, M.A.T.
JON K. SHALLOP, Ph.D.
Indianapolis

VOLTA[8] was the first to observe the effects of electrical stimulation of the ear. Shortly after inventing the voltaic cell, he inserted metal electrodes into each ear and passed an electrical current through his head. This produced a sensation resembling "a blow to the head followed by a sound like the boiling of a viscous fluid."

Djourno *et al.*[2] implanted an experimental electronic cochlea in a deaf patient. This was one of the first attempts to directly excite the human auditory nerve. News of this work encouraged William F. House, an otologist, and Jack Urban, an electrical engineer, to enter into an extensive study of cochlear implants which has spanned more than 20 years.[3] The work of House and Urban[4] has led to the development of the single electrode cochlear implant described in this article.

The authors of this article are a co-investigator team working with Dr. William House and the staff of the House Ear Institute, Los Angeles.[5,6,7] This study was initiated as part of a national clinical trial to

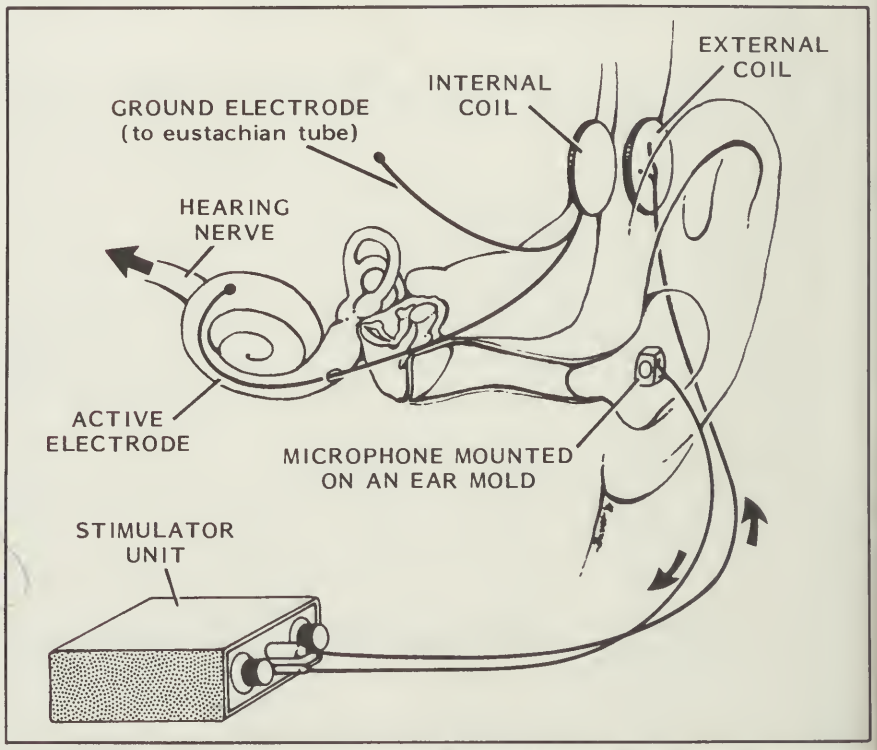


FIGURE 1—The Cochlear Implant System is detailed showing the various components. Sound is detected by the microphone and then the electrical output of the microphone goes by wire to the stimulator unit. Within the stimulator unit, a 16 kHz carrier frequency is modulated by the input from the microphone and outputed to the external coil. The signal is then transmitted by magnetic induction to the internal coil and then to the electrodes.

From the Department of Otolaryngology and Head and Neck Surgery, Indiana University School of Medicine.

Correspondence: Richard T. Miyamoto, M.D., Dept. of Otorhinolaryngology, Riley Hospital for Children A56, 1100 W. Michigan St., Indianapolis, Ind. 46223.

Acknowledgment: This investigation was supported by grants from the Lions Clubs of Indiana and the General Otolaryngology Foundation.

further evaluate and hopefully improve the cochlear implant as an auditory prosthesis for selected patients in the deaf population.

The ear is a transducer with the primary function of converting sound energy (a complex mechanical pressure wave) into a set of electrical impulses which enter the central nervous system via the auditory nerve. By convention the ear is divided into the outer ear, the middle ear and the inner ear. The outer ear consists of a horn (auricle) to collect sound and a tube (the external auditory canal) to conduct sound pressure to the tympanic membrane. The middle ear contains a chain of articulating ossicles (the malleus, incus and stapes) which deliver the vibrations of the tympanic membrane to the oval window of the fluid filled cochlea. The ossicular chain serves as an efficient impedance matching mechanism which couples airborne sound waves with the fluids of the inner ear.

The hearing function of the inner ear is performed within the cochlea where the actual conversion of sound energy into electrical energy takes place. The cochlea is a coiled, fluid-filled tube divided into three chambers: scala vestibuli, scala tympani and scala media. The scala media is bordered superiorly by a single cell layer membrane (Reissner's membrane) and inferiorly by the basilar membrane. Sound transmitted to the inner ear sets the fluids of the cochlea into motion and traveling waves are propagated along the scala media. The motion of the scala media causes stimulation of the receptor cells (hair cells) of the cochlea which, in turn, initiate electrical impulses (action potentials) in the auditory nerve. These impulses are then transmitted to the brain where they are interpreted as sound.

If the hair cells of the cochlea are absent or defective, sound cannot be converted into electrical impulses. In such cases severe or profound hearing loss will result. Prior to the advent of the cochlear implant, very little if anything could be done for profound sensorineural hearing loss secondary to the loss or absence of the receptor hair cells.

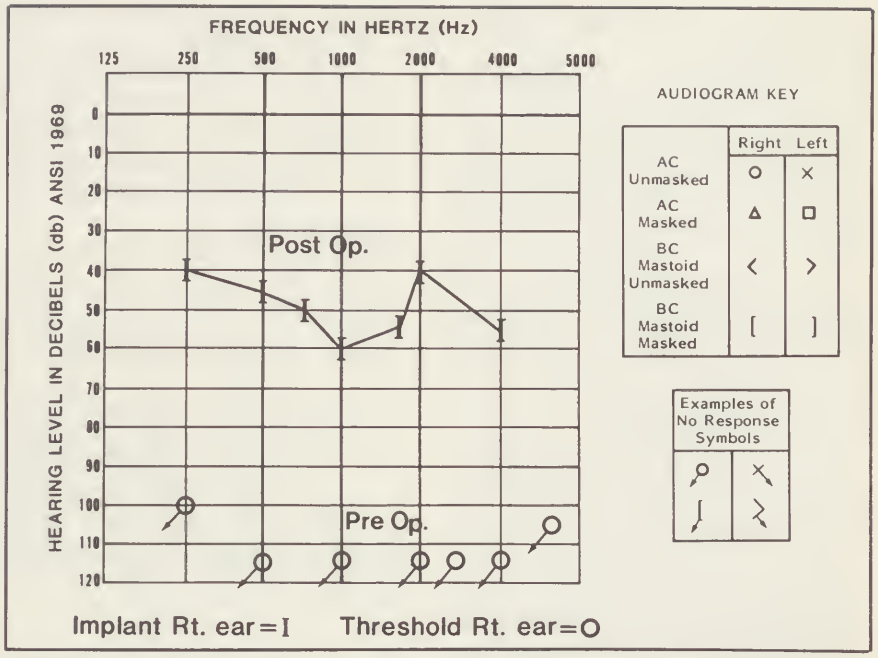


FIGURE 2—The audiogram of an 18-year-old cochlear implant patient demonstrates a typical improvement in the ability to detect sound. Prior to receiving the implant, this patient's hearing thresholds exceeded 120 dB HL. With her cochlear implant functioning, she detects sound at 48 dB HL. She also shows improved lipreading ability and sound recognition ability.

The cochlear implant *(Figure 1)* is an electronic auditory prosthesis that permits a person with a profound sensorineural hearing loss to receive neural stimulation from sound pressure. This is accomplished through the direct electrical stimulation of the auditory nerve. An external stimulator device performs the function of the absent cochlear hair cells by converting sound into electrical signals that are transmitted to the auditory nerve through an electrode positioned surgically in the cochlea.

Selection of Candidates

Patients with profound sensory deafness (loss of hair cells in the cochlea) may have remaining VIIIth nerve fibers that can be stimulated electrically. These patients can be identified through a special test procedure.[3] For this test an insulated 27-gauge needle is passed through the tympanic membrane and positioned on the promontory (medial wall) of the middle ear under local anesthesia. Low intensity currents are then passed through the electrode. If this electrical stimulation produces a sensation of sound, functional neural elements are known to be present.

In addition to the positive neural response to the electrical promontory test, additional selection criteria for the cochlear implant program include:

- persons 18 years of age or older;
- post-lingually deafened (i.e., after the essential elements of speech and language have developed);
- profound sensory hearing loss,

95 dB hearing level (HL) or greater in both ears;

- demonstration of inability to benefit from use of powerful conventional hearing aids;
- absence of gross personal maladjustment as demonstrated by appropriate psychological tests and interviews;
- consent to complete a prescribed rehabilitation program which requires the close participation of a spouse or friend.

Presurgical Counseling

Patients are counseled prior to surgery about the expected benefits, limitations and costs of the implant. It is anticipated that awareness and recognition of common environmental sounds will improve. Lipreading skills should be facilitated and the patient's own voice quality should improve. It is stressed that the patient will not be able to discriminate speech without the use of visual cues. It is very important that patients who are candidates for the cochlear implant understand that hearing with the stimulator will not be "normal." A common misconception among prospective patients is that "normal" hearing will be achieved. The neural stimulation received from the cochlear implant equipment usually will result in perceptions of sound very different from what patients can remember before the loss of their hearing.

The Surgical Procedure

The cochlear implant procedure involves the surgical placement of an induction coil above and behind the auricle deep to the scalp. A pair of electrodes are attached to the coil. The "active" electrode of this pair is placed into the scala tympani of the cochlea and the ground electrode can be placed into either the attic or Eustachian tube.

Cochlear implant surgery is accomplished through a post-auricular incision. A mastoidectomy is performed and the middle ear is entered through the facial recess leaving the ear canal intact. The anterior lip of the round window niche is gently removed and the basal turn of the cochlea is opened just anterior to the round window membrane. The active electrode is then gently inserted approximately 18 mm into the scala tympani of the cochlea. The ground electrode is inserted through the attic into the Eustachian tube. The internal induction coil is then secured to the lateral surface of the skull above and behind the auricle. The incision sites are allowed to heal for approximately two months prior to the fitting of the external device.

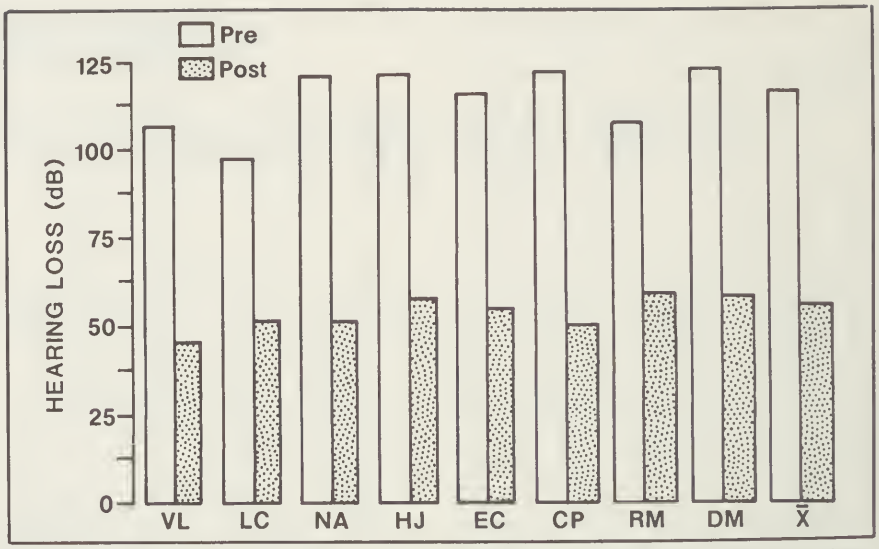


FIGURE 3—Pre-operative vs. post-operative hearing levels of eight cochlear implant patients at Indiana University Medical Center.

The External Device

In addition to the surgically implanted internal induction coil and active and ground electrodes, the cochlear implant equipment includes an external device, consisting of a microphone, a stimulator unit and the external induction coil. The microphone, which can be mounted in an earmold, picks up sound and passes this energy to the stimulator unit. The stimulator unit emits a 16 kHz carrier wave, which is modulated by the signal from the microphone. The unit is set so the carrier amplitude is just below the patient's electrical threshold for the carrier. The signal produced by the stimulator unit is then sent by a wire to the external coil and transmitted across the skin as a magnetic signal to the internal coil. The signals then create electrical potentials between the two implanted electrodes, which vary in intensity depending on the level of sound detected by the microphone. The temporal patterns of the sound input also are duplicated in the electrical signal. This electrical field will then stimulate any remaining VIIIth nerve fibers.

Audiology Data

To date, our co-investigator team has implanted 10 patients. Sufficient information has been accumulated on eight patients to make some definitive statements.

Presurgical air conduction responses were 95 dB or poorer in the speech frequencies (500, 1000, 2000 Hz). After cochlear implant surgery all patients responded to pure tones across the frequency range of 250 to 4000 Hz (refer to the sample audiogram presented in *Figure 2).* In the speech frequencies an average

TABLE 1. Pre-operative and post-operative hearing thresholds (average of 500, 1000, & 2000 Hz) in decibels hearing level, dB HTL for eight cochlear implant patients. The pre-operative thresholds were obtained with standard audiometric earphones (TDH-39). The post-operative thresholds were obtained in a sound field with each patient wearing a cochlear implant stimulator unit (Sigma 7).

Patient:	VL	LC	NA	HJ	EC	CP	RM	DM	MEAN
Pre-op	107	97	>120	>120	114	>120	105	>120	113
Post-op	45	51	50	56	53	48	56	55	52

threshold of 52 dB HL with a range of 45-56 dB HL was measured. It should be noted that these responses do not necessarily indicate that the patients are receiving specific frequency information. The patients responded to the presentation of signals at the various frequencies even though they may be unable to differentiate one frequency from another. It is felt that the reception of sound for these patients is primarily based on clues related to intensity and temporal patterns. Audiometric results are summarized in *Table 1* and *Figure 3*.

Rehabilitation

Patients have consistently reported that the electrical signals received through the cochlear implant differ from their prior recollections of sound. This fact necessitates a training program in order to optimize the long-term benefits to the patient.

Approximately two months after surgery, the incision has healed sufficiently to connect the external parts of the cochlear implant device and initiate an intensive training program, which focuses on the following objectives:

1. To promote knowledgeable, comfortable and relaxed use of the external equipment.

2. To develop critical listening ability within a variety of situations including: a) the use of environmental sounds to provide a better contact with one's surroundings such as knowing when someone is talking, hearing the doorbell, hearing a baby cry, etc., and b) the awareness and utilization of basic time and intensity cues of speech to help the patient differentiate stress and inflectional patterns and help him to differentiate what he is speechreading.

3. To acquire skills for monitoring one's own voice production.

4. To improve one's speechreading (lipreading) skills. The first two objectives represent the primary focus of the training, with the greatest amount of time being devoted to auditory training. Work in the areas of voice and speechreading depends on individual needs. Often voice quality and intensity improve indirectly as the auditory skills improve, requiring little or no direct work. The amount of work in the area of speechreading is related to pre-surgical speechreading ability. All patients in this study have demonstrated improved speechreading with the use of the cochlear implant, but those patients who begin rehabilitation as poor speechreaders may need more intensive training.

Summary

This article describes a recently developed procedure for helping selected patients with profound sensorineural hearing loss. Cochlear implant surgery consists of the placement of an "active" electrode into the cochlea and a ground electrode into the middle ear. These electrodes are attached to an internal induction coil, which is placed in a surgically created bone recess behind the auricle. After a healing period, electrical signals are transmitted through the skin from an external signal generator. An extensive rehabilitation program is an integral part of the protocol.

To date 10 patients have received a cochlear implant at the Indiana University Medical Center and other patients are being reviewed as candidates. Following the rehabilitation program, typical benefits received from the cochlear implant include:

1. improved identification of environmental sounds;
2. improved recognition of the time and intensity cues of speech;
3. improved lip reading ability; and
4. better self-monitoring of voice production.

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Fragile X-Linked Mental Retardation: An Important, Recently Recognized Form of MR

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Fragile site (arrow) on X chromosome in X-linked Mental Retardation. Cells were cultured in media 199 with phytohemagglutinin and 2% fetal bovine serum for 72 hours. Colcemid was applied for 30 minutes and cells were harvested with 0.075 MKC1 hypotonic solution.

THE FREQUENCY of mental retardation (MR) is greater among males than females. This observation has led to speculation about forms of X-linked mental retardation. It is estimated that X-linked MR may account for as much as 25% of all severe MR in males, making it more common than the Down syndrome in males.

Recent cytogenetic studies have found evidence of a marker (fragile) X chromosome *(Figure)* which is associated with MR. Although a cause and effect relationship between this X chromosome marker and mental retardation is unknown, the practicing physician who knows the clinical features of the fragile X syndrome can initiate studies to make the diagnosis.

Clinical Features

a. MR
b. Large testes
c. Subtle physical features.

The physician should consider the fragile X syndrome in any patient with mental retardation and large testes. In many cases, the testes are grossly large. In others it is necessary to measure the testes (the mean length for an unaffected male of 16 years or older is about 4.5 cm). In some cases macro-orchidism is unilateral. The physician should suspect this diagnosis or other forms of X-linked MR when there is more than one retarded male in a family, with or without large testes.

X-linked MR is also considered when there is a retarded male with no explanation or other diagnosis. With the exception of the large testes there is usually a bland clinical picture (absence of consistent physical stigmata). It is this bland clinical picture in a retarded male which should alert the physician to the possibility of fragile X-linked MR syndrome.

Mode of Inheritance

The fragile X syndrome is inherited like other X-linked traits such as Duchenne Muscular Dystrophy and classical hemophilia. The marker is carried on one X chromosome of the mother who does not usually manifest MR. Each son born to a carrier female has a 50% risk of being affected, while the daughters have a 50% risk of being carriers.

There may be two types of fragile X syndrome carriers: one in which the intelligence of carriers is normal

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and the percentage of marker cells decreases with increasing age and an alternative form in which the carrier women are less intelligent than their non-carrier sisters and in which there tends to be no decrease in the frequency of marker X with age.

Diagnosis

When the fragile X syndrome is suspected, a special chromosome study is indicated. To demonstrate the marker X chromosome, lymphocytes from heparinized blood samples are cultured in a medium deficient in folic acid and thymidine. Culture conditions are critical and require advanced laboratory preparation.

A constriction in the distal portion of the long arm of one X chromosome *(Figure)* is diagnostic when found in 4% or more of the patients' cells. Patients with macroorchidism are more likely to have marker X chromosomes. Some patients without large testes will have the diagnostic chromosome. The mothers of affected males are presumed carriers and the marker X chromosome may be demonstrated in her karyotype. It is also important to study the mother's relatives (primarily sisters and daughters) to determine if any are carriers. All carriers should receive genetic counseling explaining their 25% risk for having a mentally retarded child (i.e., specifically 50% risk for male offspring) and a 50% risk for each daughter to be a carrier.

The prenatal discrimination between affected and unaffected males is problematic at this time. However, it is possible to distinguish male and female fetuses prenatally. Therefore, in families where females are unaffected, a severely affected child with the fragile X syndrome can be avoided by selective termination of male fetuses. Recent advances suggest specific diagnosis of an affected fetus may be possible in the future.

Summary

Mental retardation is the most prevalent chronic handicap in our society. The physician should consider the fragile X syndrome as a possible diagnosis in males with mental retardation and large testes and other mentally retarded male relatives. Special chromosome studies should be performed for confirmation of the syndrome. Families of positive cases should receive genetic counseling and chromosome analysis for carrier detection among females for this X-linked trait.

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Pulmonary Rehabilitation: A Resource for Physicians

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CHRONIC OBSTRUCTIVE Pulmonary (or Lung) Disease (COPD, COLD) has rapidly become a major health problem in the United States today. The terms COPD or COLD are relatively new and are used to collectively describe the diseases of chronic bronchitis, emphysema or asthma with persistent obstruction of air flow.

Statistics show that these three diseases are leading causes of morbidity and mortality in this country. Their direct and indirect economic costs were estimated to be $5.7 billion in 1976.[1,2] Of course, there is no way to measure the cost of COPD in terms of human suffering. In 1979 there were nearly 50,000 deaths from COPD and it was the fifth leading cause of death in this country. Data from the 1978 National Health Interview Survey led to estimates that there were about 7 million Americans with chronic bronchitis, 2 million with emphysema and about 6 million with asthma.[1,2]

There is some overlap among these conditions but prevalence rates would be even higher if previously undetected conditions were also included. Indeed, the statistics relating to COPD are staggering and awesome in terms of human life and health care cost.

Patients with COPD present an array of problems and needs to the practicing physician. It is a crippling disease physically, psychologically and economically for most patients and their families. The physician must be concerned not only with the manifestations of the disease itself but with the patient's environmental situation, personality makeup, family and home situation. Therefore, a comprehensive care approach is needed which involves rehabilitation medicine, considerations of metabolic and nutritional factors, patient and family education, bronchial hygiene, psychological support and individual counseling sessions. This type of multidisciplinary approach often is time consuming and difficult for the physician to coordinate within the constraints of a daily office practice. Most likely, the physician does not have the resources at hand or the time available to meet the diverse needs of these patients and their families. What is being done to help the physician provide more comprehensive care to the patient with COPD?

Pulmonary rehabilitation is a term commonly used to denote a comprehensive care program for the patient with COPD. These programs are designed to assist the physician in the care of patients. The focus of any program of this sort is to return the patient to the highest level of independent functioning. This, of course, is too broad an objective to be measured and quantified. Some specific aims that a COPD program may seek are shown in the *Table*.[3] All of these aims are measurable. Not all of these may be aims of a specific rehabilitation program. Each program should have a clear statement of which aims are sought and a means of documenting whether they are achieved.

Program Organization

Any patient who has chronic lung problems may be a candidate for pulmonary rehabilitation. Admission into a program will be determined by the program's criteria and evaluation process. Usually, the programs are for those adults with COPD although there are programs available for patients with cystic fibrosis and acute asthma.

Pulmonary rehabilitation programs are available on either an inpatient or outpatient basis, depending on the institution. Each format and location has advantages and disadvantages. For example, an inpatient program may allow for more careful observation, more intensive exercise under close observation and a more efficient deployment of rehabilitation personnel. Its disadvantages include higher costs, need for hospitalization, and difficulty in transferring information learned by the patient and family into the home setting. An outpatient program avoids hospitalization, is somewhat less expensive and allows larger groups to participate. However, the outpatient program may impose logistic problems in transportation as well as difficulties in assuring regular exercise, financial reimbursement, plus possible staffing problems for the rehabilitation team. The type of program setting will be determined by the constraints of the institution providing the rehabilitation program, the patient population and the needs of referring physicians.

Numerous team members may be involved in a rehabilitation program. Each program will employ different health care professionals depending on their specific functions at that institution. Some possible team members include nurses, registered therapists, dietitians, social workers and chaplains. Every member of the team plays an important role. Rehabilitation is a big job and if it is to be done properly a coordinated team effort is essential.

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Program Components

Education of the patient and family is a primary focus of any rehabilitation program. The educational sessions encompass both the medical and the emotional aspects of COPD. The patient and key persons responsible for the patient's care should be instructed in the goals of treatment, anatomy and physiology of the respiratory system and administration of medications. Other components of the individualized comprehensive care program which may be included are nutrition, bronchial hygiene, energy conservation techniques and psychosocial issues.

Not all rehabilitation programs will cover the same information in their educational offerings. Each patient usually is evaluated on an individual basis regarding educational needs. In addition, educational materials are also available for the patient to take home and use for reference. Depending on the program, the education may be done on a one-to-one basis or in a group setting. The group setting seems to be the choice of many programs. It allows members of the group to share ideas and problems encountered in every day living. The group setting also provides motivation, moral support and friendship among patients and families. Most patients find it very helpful to meet and talk with other people who have the same problems, fears and experiences.

Conditioning and exercise programs are also part of the rehabilitation process. The COPD patient often becomes dyspneic and fatigues easily with minimal effort. To avoid discomfort caused by dyspnea, the patient often avoids physical activity and thus becomes more deconditioned. The rehabilitation therapist can help the patient set up a home regimen to assist in a progressive exercise and reconditioning program. As endurance improves, exercise capability is increased, which promotes a feeling of well being and greater independence for the patient. To a severely disabled patient, this may mean walking without difficulty to the dining room table, while to another patient it may mean playing nine holes of golf. For either patient, personal goals are important and are viewed as milestones achieved in a personal exercise program.

Another part of the pulmonary rehabilitation program is follow-up with the patient by phone, mail, interview or in a continued breathing club. An important aspect to the patient is knowing who to contact for information or help. Any problems or information outside the realm of the rehabilitation team are referred directly to the physician. A total summary of the patient's participation in the program usually is sent to or discussed with the referring physician. The rehabilitation team is not designed to replace the physician, but rather to augment and reinforce the physician's education and care plan for the patient.

Summary

Pulmonary rehabilitation programs are available to some degree in most areas of Indiana. As of August 1980, there were 17 active programs with many more yet in the developmental state.[4] Although these programs all vary in the numbers of personnel, patients and services provided, their goals are the same—to help alleviate and control some of the symptoms of COPD and to encourage and condition the patient to return within his limitations to a more active and productive lifestyle.

Definite benefits can be obtained by most patients who enter a program. It must be noted, though, that rehabilitation does not "happen" to the patient; pulmonary rehabilitation is a dynamic process that requires active patient participation and motivation. Lastly, it is important to recognize that these programs cannot exist without total physician support. The day-to-day treatment for the majority of patients with COPD is the responsibility of the primary physician. However, resources such as pulmonary rehabilitation programs are available to assist the physician in providing these patients with adequate comprehensive respiratory care.

For more information regarding pulmonary rehabilitation programs, contact a local hospital or the American Lung Association.

Aims of Pulmonary Rehabilitation Programs

1. Work-related aims:
   - to reduce time lost off work due to pulmonary problems
   - retention of jobs by COPD patients who are plagued by symptoms which interfere with work
   - returning to the work force those patients who have left because of pulmonary symptoms
2. Hospitalizations: reduction of the frequency and duration of hospitalizations due to pulmonary problems
3. Improving physical function: achieving measurable changes in cardiopulmonary function and in task-related activities
4. Reduced dependence on others: quantifiable reduction in visits/phone calls to physicians; reduced dependence on family members
5. Improved self-care: documented increase in ability to carry on needed activities of daily living

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Radiation of Prostate Cancer

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ADENOCARCINOMA of the prostate is the most common internal malignancy in men over 50 and the second leading cause of cancer death in men over 75. Autopsy incidence of prostatic carcinoma is 14-46% of men over 50[1] and two-thirds of men over 80.[2]

Repeated regular rectal palpation is the only cost effective screening tool for early diagnosis in asymptomatic patients.[3] Early symptoms are difficulty voiding, cystitis, nocturia, and frequency. Ten per cent of transurethral resections for benign hypertrophy reveal carcinoma. Late symptoms include complete bladder obstruction, ureteral obstruction, azotemia, and bone pain. All patients complaining of low back pain should have digital prostate palpation.

Well differentiated occult carcinoma in one or two foci discovered incidently by TUR (stage A1) has a survival equal to the normal population. Hence, observation is the only treatment.

For stages A2 and B (confined within the prostate) radical prostatectomy gives five-year survivals of 70-89%.[4,5,6] Localized, technically operable prostate cancer suitable for curative prostatectomy in medically operable patients occurs in only 5-15% of all prostate cancer patients.[7,8] Incontinence following prostatectomy is reported in 5-15%[9,10] and impotence occurs in 100%. Unsuspected extracapsular extension in clinical stage B is reported in 18-37% at radical prostatectomy.[11,12] In Jewett's experience, no patient with extracapsular extension was cured by radical prostatectomy.[12]

Fifty per cent of patients present with tumor beyond the prostatic capsule but still confined to the pelvis, and 40% present with distant metastases.[8] For clinical stage B, pelvic node metastases were found at surgery in 10-30%[13,14,15] and in 38-59%[16,17,18] of stage C depending on histologic grade of malignancy. Fifty-six to 69% of patients with pelvic node metastases will develop distant metastases within five years.[18,19] Pelvic lymphadenectomy does not reliably remove all nodal disease and has not proven better survival.[20] Complications of pelvic lymphadenectomy include 1% mortality, 10% phlebothrombosis, and penile and leg lymphedema ranging from 10 to 41%.[19,20] When radiation is given after pelvic lymphadenectomy, lymphedema is reported in 32-63%.[19,20]



FIGURE 1—Simulator port film of osteoblastic metastases in the femur and ischium from adenocarcinoma of the prostate.

5-Year Survival by Radiation of Prostate Cancer

	Stage B	Stage C
Bagshaw[15,16]	72% (158/220)	55% (101/185)
Hussey[21]	100% (5/5)	59% (81/138)
Lipsett[22]	91% (21/23)	55% (30/56)
Perez[8]	80% (34/42)	56% (79/141)
Total Average	75% (218/290)	56% (291/520)

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FIGURE 2—Urogram showing ureteral obstruction and osteoblastic metastases from prostatic carcinoma.

Radiation of clinical stage B prostate cancer results in average five-year survival of 75% and 56% in stage C[8.15.16.21.22] *(Table)*. Even 47 patients with biopsy-proven pelvic lymphadenopathy treated by radiation had a 58% five-year survival as reported by Bagshaw.[15] Most treatment failures result from hematogenous metastases, and survival is better in low grade lesions than high grade III or IV carcinomas.

Stages A2 and B, which are grade I or II, have less than 5% chance of lymph node involvement; hence, radiation is recommended through small fields to the prostate region only.[15.16] High grade or stage C lesions deserve radiation to the whole pelvis including lymph nodes and a cone down boost to the prostate. Hussey reported that 6% had proctosigmoid radiation injury necessitating colostomy.[21] Perez reported 11% urinary incontinence in radiation patients who had a TUR. Bagshaw reported severe complications requiring surgery in less than 1% using a more careful radiation technique. Decline of sexual function following pelvic radiation in elderly males is reported in 10-30%[8.23.24]

Since prostate cancer is a slow growing tumor, regression following radiation is also slow. Biopsies four months after radiation were positive in 65% but declined to 19% after 30 months at Walter Reed Medical Center.[27] Nine to 12 months may be required for a palpable nodule to disappear.[28]

Radiation control of residual or recurrent cancer following prostatectomy was 10 of 10 but four-year survival was only 70% as reported by Hussey.[21] Others report local control after prostatectomy in 57-80%.[25]

For patients with symptomatic metastases placed on DES, painful gynecomastia can be prevented by three radiation treatments to the nipples prior to the start of estrogens.

For patients whose metastases escape hormonal control and become symptomatic, palliative local radiation using medium doses in short courses may relieve pain.

In summary, pelvic radiation offers just as much local control and survival in stage B prostate cancer as radical prostatectomy without causing 100% impotence. For stage C and D1 (beyond the capsule but within the pelvis) radiation is the best choice. Three factors make evaluation of therapy difficult: 1) the occurrence in life when other causes of death are frequent causing more patients to die with prostate cancer than of it; 2) the varied and unpredictable progression; and 3) the wide range of treatments used in uncontrolled fashion.

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DIABETES MELLITUS: New Approaches to Complications

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OVER THE PAST 50 years treatment with regular and zinc protein-containing insulins has made it possible to survive with the ravages of diabetes mellitus for long periods of time; however, diabetes remains a fatal disease. Long-term survival has permitted the development of complications not foreseen by Banting and Best. In the past decade we have accumulated knowledge regarding prevention and treatment of some of these complications.

In this paper, we shall detail our current approaches to meticulous control of blood glucose, which will retard or prevent vascular complications.[1] We shall examine the evolution and treatment of hypertension, which will retard the progression of renal failure[2] and, finally, we shall examine the treatments available for the small vessel disease causing retinopathy and nephropathy.

It is now obvious that good control of glucose in diabetic patients results in a decrease in frequency and severity of retinopathy, neuropathy and nephropathy.[1] For ketosis-prone, insulin-dependent patients, the control of diabetes is best provided with twice or thrice daily administration of a combination of regular and intermediate acting insulin.[3] The goal is to maintain the blood sugar between 60 and 150 mg/dl at all times. This level of control is impossible to maintain utilizing urinary glucose determinations with fractional voiding because the normal kidney does not spill glucose until the blood glucose exceeds 220 mg/dl.

Recently, more direct approaches have become available. One method involves a direct read-out blood glucose reflectance meter; with an autolance and a glucose-oxidase impregnated reagent strip, patients can be taught to obtain capillary blood by finger-stick up to four times daily to monitor the blood glucose directly and to make appropriate adjustments in insulin dosage.[4,5] This approach is particularly desirable in patients with chronic renal failure, because both calorie intake and insulin metabolism may be altered dramatically in renal insufficiency. The usefulness of this method is not confined to those patients with chronic renal failure. The Diabetes Model Treatment Unit at Indiana University Medical Center has become expert in the management of these blood glucose monitors and serves as a resource for clinicians and their patients interested in such an approach.

In the future, wearable or implantable insulin pumps, which administer small amounts of regular insulin continuously, will supplement blood glucose monitoring. Human insulin, a product of recombinant DNA research, will be useful for treating patients who have allergic reactions to beef or pork insulin. Research involving these approaches is underway in the Diabetes Center at Indiana University.

Vascular disease is now the leading cause of death in diabetes mellitus. Disease in the large vessels and the cerebral and coronary circulations frequently is associated with hypertension and will cause death in 17% of diabetics.[6] Mogensen has shown the control of hypertension in patients with diabetes results in a marked decrease in the rate of decline in renal function and therefore a delay in the onset of severe renal failure.[2] Diuretics, such as hydrochlorothiazide or chlorthalidone, work well in patients with mild renal failure and diabetes mellitus. These drugs will increase the insulin requirement, so appropriate adjustments must be made when they are prescribed. Dehydration, which may worsen renal function, should be avoided in patients with moderate and severe renal failure. Thus, diuretics must be used with caution in these patients.

In many instances, direct antihypertensive drugs are chosen as initial therapy. Treatment with

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alphamethyldopa (Aldomet), clonidine (Catapres) or hydralazine (Apresoline) may be initiated in moderate dosage and increased at intervals of one to two weeks until the blood pressure is controlled at 140/90 mm of mercury or less, or side effects make the use of other drugs appropriate. In general, we avoid beta-blockers (propanolol, Inderal; metoprolol, Lopressor; naldolol, Corgard) because they tend to mask symptoms of hypoglycemia. However, many patients taking these drugs learn to recognize minor symptoms of hypoglycemia even with beta blockade and treat themselves appropriately.

Small vessel disease, causing retinopathy or nephropathy, is much more common in patients who are insulin dependent. Typically, these patients will develop small vessel disease after approximately 15 years of diabetes. By 17 years after the onset of disease, more than 40% of patients will develop proteinuria. Within four years after the onset of proteinuria, moderate renal failure with a serum creatinine of greater than 2 mg/dl generally occurs. By the time this stage is reached, the expected survival is less than two years. Since the onset of diabetes is frequently under 20 years of age in this group, severe renal failure is frequently manifest under 40 years of age. The time of death is frequently under age 40. Fifty per cent of patients with the onset of diabetes prior to age 20 die of renal disease.[6]

The complication rate is influenced by the duration of diabetes and the age and genetic complement of the patient. Meticulous control of the blood sugar and of hypertension, together with vigorous treatment of infection and particularly the avoidance of contrast studies will prevent or delay the appearance of most complications but the incidence of other complications, particularly retinopathy and hypertension, increases dramatically as renal failure supervenes.[7] Background retinopathy may require no treatment; however, proliferative retinopathy frequently requires laser photocoagulation or other ophthalmologic procedures.[8] The Diabetes Center will coordinate evaluation and treatment of diabetic retinopathy. Even with meticulous control of hypertension, renal failure will progress and renal replacement therapy must be considered. In general, diabetics tolerate renal failure less well than other patients, so therapy must be initiated relatively early. For this reason we prefer to see patients with serum creatinines of 4 to 5 mg/dl so that we may participate in their management prior to the requirement for dialysis or transplantation.

Diabetic nephropathy has been treated with hemodialysis for approximately 10 years. The results generally have been poor. Thirty-three per cent of insulin-dependent patients die in the first year and approximately 20% of patients die in each of the next two years, so that only 25% of insulin-dependent patients are alive at the end of three years on hemodialysis. In part, these dismal results occur in patients with severe vascular disease and uncontrolled hypertension, both of which are often found in diabetics. In contrast, the mortality of non-diabetic dialysis patients in Indiana is less than 7% per year.[9]

Because of these dismal results, there has been increasing interest in alternative methods of caring for end-stage renal disease. One alternative method is transplantation. Transplantation is presently the treatment of choice for most patients with end-stage renal disease who are under the age of 45 and who have a suitable living related donor. Transplantation is particularly efficacious in diabetes, because the survival of other methods of treatment is poor. With a perfectly matched (HLA identical) kidney from a brother or sister, 92% of diabetic patients should survive for one year after transplantation and 90% should survive for two years after transplantation.[10] In so-called "half-match" kidneys, the more usual situation when the brother or sister is the donor, the survival of the patient should be 85% at one year and 70% at two years with a correspondingly lower kidney survival.[10]

In a diabetic patient where there is no suitable or willing parent, brother, sister, or child to donate a kidney, cadaver transplantation may be offered. One year survival of cadaver kidneys transplanted into diabetics is approximately 60%. The one-year patient survival is approximately 75%.[10] All of these results are worse than the corresponding results in non-diabetic patients. A successful transplant tends to stabilize vision, but some eyes will nevertheless progress to complete blindness.

Glucose control becomes much more complex because of the steroid therapy required to prevent rejection of the transplanted kidney. Steroids frequently result in increasing difficulty with hypertension. Transplantation does not correct large vessel disease, which will continue to progress. Approximately 20% of patients with successful transplants will lose fingers, toes, or an arm or leg to vascular occlusion and gangrene within two years after transplantation.[10]

For most patients with chronic renal failure as a result of insulin-dependent diabetes mellitus (juvenile diabetes mellitus), transplantation remains the treatment of choice. However, many patients with chronic renal failure and diabetes do not have a suitable or willing living related donor. For these people dialysis offers the only alternative to death. We do not yet know the appropriate form of dialysis for these unfortunate patients.

Peritoneal dialysis, which utilizes the peritoneal surface area as an artificial kidney, may be simpler to perform. This treatment recently has received considerable publicity. Several variations of peritoneal dialysis are currently being offered.

To treat chronic renal failure, a permanent catheter is inserted through the anterior abdominal wall into the peritoneal space. The catheter is then brought through a subcutaneous tunnel and out through the skin where it may be capped until its use is required. Chronic renal failure may be treated by intermittent peritoneal dialysis, which requires a machine, some manual dexterity and 20 to 60 hours of dialysis time a week in order to control uremia. Unlike hemodialysis, intermittent peritoneal dialysis may be performed overnight without an attendant. This therapy may be performed in the hospital or at home.

Another approach, which may result in better rehabilitation, is continuous ambulatory peritoneal dialysis (CAPD), which requires the constant presence of dialysate in the peritoneal cavity.[11] The dialysate is provided in two-liter plastic bags. Two liters are drained into the peritoneal space via gravity, and dialysate remains in the abdominal cavity from two to eight hours. It is then drained via gravity from the abdomen and a fresh supply is immediately infused. Three to five exchanges are accomplished daily. To perform CAPD, good eye-hand coordination is required. Although no machinery is necessary, each exchange takes about 40 minutes from start to finish so that 25 hours per week are required to perform exchanges. This exceeds the time required for hemodialysis.

The major risk for both forms of peritoneal dialysis is peritonitis. With continuous ambulatory peritoneal dialysis, peritonitis occurs approximately once every seven patient months. Seventy per cent of the cases of peritonitis are caused by gram-positive organisms and 90% of cases can be treated on an outpatient basis. The major advantage for CAPD is freedom from machinery and the ease and simplicity in learning the technique.

Peritonitis is a very real danger, but the incidence of this in diabetic patients is unknown. Because of better control of hypertension, fluid overload, and perhaps of blood glucose, hemorrhage into the eye with resulting blindness may be less using CAPD than with hemodialysis. On the other hand, hemodialysis as a technique is well understood. Although it is more difficult to learn (and perhaps to perform) the time investment is lower.

With meticulous attention to control of blood glucose and of fluid overload and hypertension, the incidence of advancing retinopathy and blindness in patients treated with hemodialysis should decrease. On the other hand, the necessity for vascular access devices, such as an arteriovenous fistula, in patients who already have large vessel disease, may result in the loss of an extremity. For this reason we have begun a randomized examination of home hemodialysis versus continuous ambulatory peritoneal dialysis in diabetic patients with chronic renal failure to determine the better mode of therapy for these patients.

We are currently seeking diabetic patients who might be willing to participate in the study. A potential advantage of participants is ready access to all of the facilities and ancillary services provided by the Indiana University Diabetes Center, which has been established to assist in the care of diabetic patients under the aegis of the National Institute of Health. Patients eligible for the study should have end-stage renal disease as a result of insulin-dependent diabetes mellitus. Patients with mild, moderate or severe renal disease and concurrent diabetes may be referred to one of the authors at Indiana University Medical Center for potential inclusion in the study.

Although diabetes remains a fatal disease, much can be done to improve the quality of life of the diabetic patient by preventing or retarding microvascular and macrovascular complications. The Diabetes Research and Training Center is designed to assist clinicians in helping patients achieve an improved quality of life.

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Mechanisms and Treatment of Dermatophytosis

Clinical Notes

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DERMATOPHYTES can be classed as geophilic (soil), zoophilic (animal) and anthropophilic (human) organisms depending upon the natural host. Reactivity in humans is greatest with geophilic and least with anthropophilic, fungi.

Tinea capitis, when due to the geophilic organism *Microsporum fulvum,* commonly presents as a kerion. This is characterized by large, boggy pustules and regional adenopathy, and represents a severe hypersensitivity to products of the fungus. While the inflammatory reaction alone will ultimately cure the disease, treatment is often necessary to prevent scarring and hair loss. Any of these organisms may produce an inflammatory response, but zoophilic organisms e.g. *Microsporum canis* are more likely to do so than an anthropophilic organism e.g. *Trichophyton tonsurans,* which usually causes a black dot ringworm of the scalp that is fluorescence-negative.

Certain atopic individuals are prone to a type of tinea[1] that commonly involves both feet but only one hand. The causative organism *Trichophyton rubrum,* is an anthropophilic organism. The eruption occurs on the feet in a sandal-like distribution, and it tends to be dry, scaly and diffuse rather than in localized vesicles and blisters as one might see with more inflammatory tineas. Accompanying findings include nail dystrophy, and extension onto the dorsal surface of the hand or foot. Following testing with recall antigens, affected individuals have a lower incidence of reactions to mumps and poison ivy antigens[1,2] and an immediate (probably IgE mediated), rather than a delayed response, to trichophytin,[3] an antigen produced from dermatophytes. After the urticarial (immediate) lesion subsides, a second injection of trichophytin will elicit a delayed response. This indicates that the lack of a delayed response to only one injection may be due to a blocking reaction.[4] Those persons showing delayed sensitivity generally possess a measure of protection against dermatophytic infection while those lacking delayed sensitivity (these are largely identical with those manifesting immediate sensitivity) seem predisposed.[3]

The particular organism involved is also important in determining the amount of reaction. When tested with intradermal trichophytin, 74% of *T. rubrum* patients have an immediate or no reaction while of those affected by *T. mentagrophytes,* 85% have a delayed response. Following kerion due to *T. tonsurans,* trichophytin tests are positive and there is relative immunity. However, while the delayed response to trichophytin parallels immunity, there are exceptions.[5]

Dermatophytids are inflammatory reactions at a distant site secondary to hematogenous spread of fungus products. Proof of that diagnosis requires there be an inflammatory tinea, a KOH negative id, a positive trichophytin test and clearing of the id following successful treatment of the tinea.

The dermatophytes need iron for growth and do not grow well in the presence of unsaturated transferrin.[7] Serum from normal individuals, but not from those with severe infections, tends to inhibit the growth of *T. rubrum* in vitro. This can be reversed by the addition of excess iron. So far no one has found a practical way to use this phenomenon clinically.

Treatment of chronic *T. rubrum* infection almost always requires oral griseofulvin, but antibiotic resistance by the organism has increased.[8] Some of this can be overcome by increasing dosage, but absorption of the drug is poor at best and once absorbed, a multiplicity of other drugs including alcohol hasten its metabolism. Griseofulvin is excreted in sweat and this quality has been used to increase drug content in some portions of the affected stratum corneum.[9] Ketaconazole, an oral imidazole antibiotic from the same family as the topical agents miconazole and clotrimazole, now has been released but hepatitis may be a problem. Whether or not this will provide an alternative for persons either allergic to, or intolerant to, griseofulvin, the lack of a normal immune response to certain dermatophytic infections is likely genetic, so it may be difficult to prevent reinfection of susceptible individuals.

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New information from
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**EVERY PHYSICIAN'S OFFICE—
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After careful study of the literature and other information available, the American Cancer Society does not have evidence that treatment with O. Carl Simonton's psychotherapy method results in objective benefit in the treatment of cancer in human beings. Following is a summary of information on O. Carl Simonton, M.D., in the American Cancer Society files as of June 1981.

Introduction: Dr. Simonton was born in 1942. He received his medical degree in 1967 from the University of Oregon Medical School, and was licensed to practice medicine in Oregon in 1969, and in Texas in 1974.

Dr. Simonton was formerly a radiologist at Travis Air Force Base, Calif. He was licensed in California and certified as a therapeutic radiologist by the American Board of Radiology in 1973.

At present, Dr. Simonton is Medical Director of the Cancer Counseling and Research Center (CCRC) in Fort Worth, Tex. The Director of Counseling & Program Director at the Center is (Mrs. O. Carl) Stephanie Matthews-Simonton. The staff includes a number of M.D.s and Ph.Ds. Among them are a psychodiagnostician, medical consultant, psychiatric consultant, child psychiatrist, cellular biologist and a consulting physicist.

Purposes: According to a descriptive brochure distributed by the CCRC, the approach described and used by the Center relies strongly on such concepts as relaxation and mental imagery as applied to cancer therapy, the role of the mind in cancer therapy, and stress, psychological factors and cancer.

Scientific and Lay Literature: A review of the scientific literature to June 10, 1981, was carried out first by examining the annual volumes of *Index Medicus* from 1976 to 1980 and the monthly issues of the *Index* from January through June 1981. This review was extended by a computer search through the *Medlars* System of the National Library of Medicine, the Smithsonian Science Information Exchange, National Institute of Mental Health, National Clearinghouse for Mental Health Information, and the National Institute for Scientific Information. Six clinically oriented papers by Dr. Simonton, Mrs. Simonton or their associates were found. In addition, nine papers about the Simonton technique were found in professional and lay journals.

Evaluation: The Society's Committee on Unproven Methods of Cancer Management has suggested that the methods advocated and employed by the Simontons are subject to controlled scientific studies. In July 1980, a letter was written to Dr. Simonton requesting information, to include published materials regarding his techniques. In a reply received Sept. 4, 1980, Mrs. Simonton stated, "We are in the process of preparing a 5-year research plan to better research the outcome of our work." No confirmation of this plan has been received to date.

In the Spring of 1981 a review of the Simonton techniques based on currently available publications and audio-tapes obtained from the CCRC was carried out independently by consultants in the Departments of Psychiatry at two major medical centers in New York City (Memorial-Sloan Kettering Cancer Center and Mt. Sinai Hospital). The findings at the two institutions were remarkably consistent and similar. The major conclusions are summarized as follows:

Positive

1. Use of the Simonton technique encourages a sense of "doing something" about cancer and promotes a sense of reinstituting mastery—even control over the patient's situation.

2. It promotes relaxation, thus decreasing anxiety, and temporarily leads to an increased sense of well-being.

3. The technique counteracts a psychologic sense of helplessness, and as far as is known it has no deleterious physical effects.

4. Dr. Simonton does *not* recommend stopping standard therapies that may be advised (e.g., radiation and chemotherapy).

5. By emphasizing a positive, active attitude, Dr. Simonton may help patients adapt more appropriately to their situation.

Negative

1. There is no evidence of a scientific basis for Simonton's claims of efficacy.

2. There appear to be several conceptual flaws in Dr. Simonton's thinking, particularly the premise that a patient contributes to developing his cancer and has a direct personal role in curing cancer. There is no evidence for either of these views.

3. There is no evidence that reducing stress enhances the body's rejection or containment of cancer.

4. There is no evidence that the use of imagery is efficacious in altering the course of neoplasia.

5. Potential hazards for patients are associated with induction of guilt feelings, over-reliance on the Simonton technique and with abandonment of generally accepted treatments, in spite of Dr. Simonton's advice to continue.

In summary, the consensus of the consultants at Memorial-Sloan Kettering Cancer Center and Mt. Sinai Medical Center, among whom are psychiatrists and psychologists, was that, although in its more positive aspects the Simonton technique may increase patient comfort and ability to deal with cancer, there is no scientific evidence that psychological and psychosomatic factors will alter the course of the disease. The references and a more comprehensive summary statement are available in the Division ACS office.

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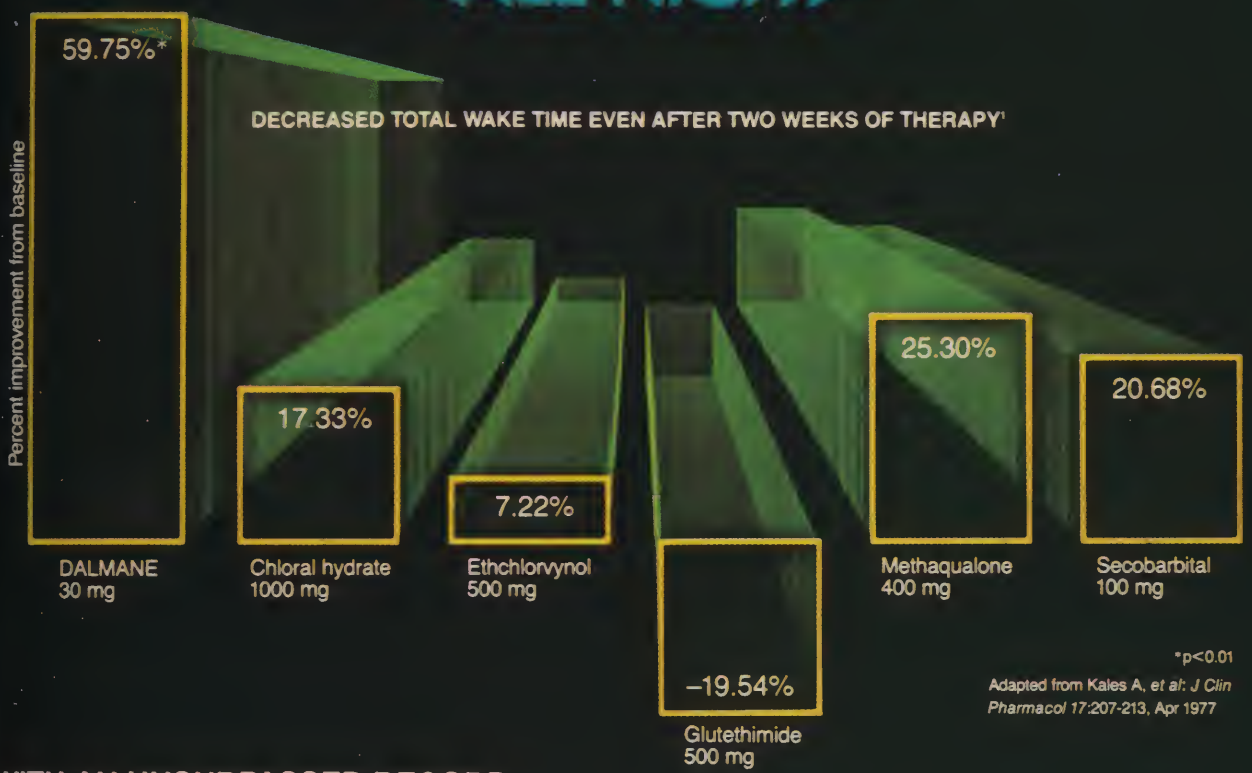
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–which can cause transient insomnia in the elderly[10]

–which can require careful monitoring in cardiovascular patients[10]

–which have strong anticholinergic effects[10]

Antihistamines

–which are *not* reliable sleep-inducing agents[11]

–which may produce stimulation instead[11]

–which have anticholinergic effects[11]

Major tranquilizers

–whose side effects may be troublesome for nonpsychotic patients[12]

–where tolerance for sedation appears rapidly[12]

Dalmane does not cause significant worsening of sleep beyond baseline levels upon discontinuation.[4]

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect.
Adults: 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

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Manati, Puerto Rico 00701

RONALD G. BLANKENBAKER, M.D.
State Health Commissioner

New information from
Office of the Commissioner
Indiana State Board of Health
1330 W. Michigan St.,
Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

In recent years, reports and inquiries have indicated an increase in tuberculosis in health facilities in Indiana. Cases occur among both personnel and residents within these institutions, and many are not found and diagnosed until after other persons have been exposed. Two-thirds of the new cases of tuberculosis reported in Indiana are found in persons 45 and older; most of these cases represent reactivation of infections acquired many years before. Since a major proportion of residents of health facilities are in this older age group, the potential for serious problems is quite large.

Just how serious a problem may develop is illustrated by a recently reported investigation in Arkansas.[1] Ten cases (nine residents, one employee) of progressive primary tuberculosis developed in a 240-bed nursing home described as clean, well administered, and well staffed. The index case was an ambulatory, gregarious 73-year-old man who was highly infectious for at least 12 months before the diagnosis of tuberculosis was made. Forty-nine (30%) of previously tuberculin-negative residents (mean age, 73.5 years) became infected, and eight (17%) developed clinical tuberculosis, including one who died. Also, 21 (15%) of 138 tuberculin-negative employees became infected, including one clinical case.

The epidemic was finally stopped by giving preventive treatment with isoniazid to all converters regardless of age. Further investigation involving several other nursing homes revealed that only 10-12% of elderly persons harbor a dormant tuberculosis infection today, much lower than commonly thought. If one of this group develops active tuberculosis, however, 80-90% of fellow residents and employees may be endangered.

Because of these concerns, tuberculosis screening requirements were strengthened in the recently revised rules establishing standards for licensing and operation of health facilities in Indiana.[2] As of Dec. 13, 1981, persons admitted to nursing homes in Indiana must have verification that they are free of communicable disease, including tuberculosis in an infectious stage. The intermediate strength PPD Mantoux test is specified for tuberculin testing of both residents and employees.

Title 410 of the Indiana Administrative Code (IAC), specifically 16.1-3-13, requires that ". . . Each comprehensive care facility shall maintain the following records: . . . (a)(1)(J)(iii) A statement that the resident is free of communicable disease including tuberculosis in an infective stage and the statement shall be verified by examination before admission and yearly thereafter. A diagnostic x-ray completed no more than six months prior to admission or at admission and an intermediate strength PPD Mantoux test completed in the last three months is required prior to admission. Subsequently, the negative intermediate strength PPD Mantoux test may be considered as adequate verification regarding tuberculosis. If the resident has a positive reaction to the test, then a diagnostic chest x-ray shall be made yearly, plus other physical and laboratory examinations as may be indicated in order to complete a diagnosis." An identical requirement is found in 410 IAC 16.1-4-3(c) (Facilities Offering Residential Care) and in 410 IAC 16.1-5-2(c) (Boarding Homes for the Aged).

All patients are required to have both a tuberculin test *and* a chest x-ray upon admission. If the tuberculin test is negative and remains so, then only a repeat tuberculin test is required annually thereafter. If at any time the tuberculin test is positive, whether at admission or later, then a chest x-ray is required annually thereafter and the tuberculin test need not be administered again.

Why is it necessary to obtain both a chest x-ray and a tuberculin test? Because persons over 50-55 years of age tend to become anergic; that is, they lose their sensitivity to tuberculin antigen. The chest x-ray is needed to reveal evidence of tuberculosis in persons whose tuberculin tests may be falsely negative. The Mantoux tuberculin test also is required since, after admission, a yearly chest x-ray will not be required of patients having negative skin tests.

The necessity for an admission x-ray and PPD Mantoux test will require appropriate preadmission planning which could include:

- If the prospective resident is in a hospital, the hospital must do the necessary testing. The results of this testing must be recorded in the transfer form from the hospital. If necessary, and *only* if the chest x-ray is negative for tuberculosis, the PPD Mantoux test can be given in the hospital and read in the health facility 48 to 72 hours later.
- If the prospective resident is being admitted from the community, the x-ray and PPD Mantoux test can be carried out by the attending physician as part of the preadmission process.
- If the prospective resident does not have an attending physician or is not transferred from a hospital, then the testing must take place within 48 hours after admission in accordance with 410 IAC 16.1-3-7(a).

There are some instances of hypersensitivity to the PPD Mantoux test in which the physician may feel that further administration of the test could be detrimental to the patient's health. In this case, the phy-

CONTINUED ON PAGE 196

Famous Pairs.



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One of man's most amazing explorations and scientific adventures, the successful Gemini flight program was a triumph of imagination and—teamwork. Two men learned to operate in space, to rendezvous, to dock, and to work outside their spacecraft in the hard vacuum of outer space. Not only did they coordinate their efforts with ground backup, they also complemented each other's activities within the close confines of the space capsule.

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Anusol-HC®
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*The #1 physician-prescribed product for hemorrhoids and other common anorectal disorders***

- ☐ *Antiinflammatory, to relieve edema, burning, itching, pain*
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And, when pain is a special problem, Anusol Ointment offers the benefits of the anesthetic, pramoxine HCl.

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- ☐ *Hygienic rectal wipe—an integral part of the anorectal regimen*

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**Meeting of Am Soc Colon/Rectal Surgeons, May 1980.*
***Based on total prescriptions filled for hemorrhoidal preparations during the first three quarters of 1981. The National Prescription Audit, IMS America Ltd, Sept 1981.*
†1981 data from leading marketing research organization.

PD-85-JA-0867-P-1 (2-82)

ANUSOL-HC® Suppositories/ ANUSOL-HC® Cream

Before prescribing, please see full prescribing information. A Brief Summary follows:

Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in external and internal hemorrhoids, proctitis, papillitis, cryptitis, and fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

CONTRAINDICATIONS

Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

WARNINGS

The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

PRECAUTIONS

General

Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy

See "WARNINGS"

Pediatric Use

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

DOSAGE AND ADMINISTRATION

Anusol-HC Suppositories—Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

Store between 59°-86°F (15°-30°C)

10896010

Prisoner Sues: Claims Lack of Medical Treatment

A TRIAL COURT should have granted a prisoner's request for appointed counsel under the statute governing proceedings *in forma pauperis*, a federal appellate court in Indiana has ruled.

The prisoner was a paraplegic and confined to a wheelchair. When he entered prison, he asked for a prescription for Valium. The prison medical services administrator told him that the drug was not available at the prison. His request for Percodan was denied for the same reason. Instead, he was given a substitute medication that allegedly caused serious side-effects and failed to relieve the pain or muscle spasms related to his paralysis.

The prisoner alleged that when he entered the prison hospital and requested physical therapy, he was told that it would be available when suitable equipment was installed. He said that the administrator made no effort to obtain the equipment. He contended that because of lack of adequate medical treatment he could no longer do the range of motion exercises that he was previously capable of doing and that his legs were locked in one position, causing physical and mental suffering.

The prisoner sued the administrator, alleging that his indifference to the prisoner's serious medical needs violated his Eighth Amendment right not to be subjected to cruel and unusual punishment. He requested counsel to represent him.

The administrator moved for dismissal, contending that he was not a medical doctor and had no direct personal responsibility for the prisoner's treatment or lack of it. He alleged that his responsibility was to see that inmates received medicine or therapy prescribed by physicians. He said that he was investigating the possibility of sending the prisoner to a hospital for evaluation of his condition.

The trial court dismissed the complaint. The judge ruled that the administrator was not responsible for the prisoner's treatment and that, since the possibility of sending him to the hospital was being investigated, there was no deliberate indifference to his needs.

On appeal, the court found that the prisoner's allegations that he had received no physical therapy for his condition while in prison and other allegations formed a factual basis for his claim that if proved would show a violation of his Eight Amendment right. The court found that the prisoner was in no position to investigate facts regarding his complaint. Where he was confined to a wheelchair and in constant pain, the court said, he could not be thought capable of conducting an adequate examination of his medical records or gathering evidence. Finally, he had not demonstrated a workable knowledge of legal procedures.

The court reversed the lower court's decision and sent the case back for appointment of counsel and further proceedings.—*Maclin v. Freake,* 650 F.2d 885 (C.A.7, Ind., June 3, 1981)

Courtesy of *The Citation,* Oct. 15, 1981.

Public Health Notes . . .

CONTINUED FROM PAGE 193

sician must indicate on the patient's record that administration of the test is contraindicated. However, the x-ray must be done.

410 IAC 16.1-3-5 sets forth physical examination requirements for employees of comprehensive care facilities. It states: "(a) A physical examination shall be required for each employee of the health facility at the time of employment and yearly thereafter. The examination may include chest x-rays, laboratory tests, and immunizations as deemed necessary by the individual physician.

"(b) A Mantoux tuberculin test using intermediate strength PPD may be given in lieu of a chest x-ray, and while the test remains negative it may be repeated annually. If the individual has a positive reaction to the test, a diagnostic chest x-ray shall be made, plus other physical and laboratory examinations as may be indicated in order to complete a diagnosis; and the employee must be deemed free of tuberculosis in an infectious stage before resuming duties."

These rules contain identical requirements for employees of residential care facilities (410 IAC 16.1-4-3(c)) and employees of boarding homes for the aged (410 IAC 16.1-5-2(c)).

Every employee shall be examined for tuberculosis at the time of employment and yearly thereafter with one exception: Any employee who is a positive tuberculin reactor, in apparent good health, and who has had 12 months of tuberculosis prophylactic therapy will not be required to have an annual chest x-ray.

REFERENCES

1. Stead WW: Tuberculosis among elderly persons: An outbreak in a nursing home. *Ann Intern Med,* 94:606-10, 1981.
2. 410 IAC 16.1: Licensing and Operational Standards for Health Facilities. (Effective Dec. 13, 1981.)

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy,* Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

When impotence is due to androgenic deficiency.

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Additional indications: Replacement therapy. When androgen deficiency is the cause of: male climacteric/eunuchoidism, eunuchism/post-puberal cryptorchidism.

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FUTURE FILE

Conference for Hospital Managers

The third annual Conference for Hospital Managers and Department Heads will be conducted by the Indiana Hospital Association June 8-9 at the Sheraton West in Indianapolis. New approaches to increase managerial skills and knowledge of health care environment will be presented. For full info write or call Susan Ebel, 3921 N. Meridian, Indianapolis 46208, (317) 926-1395.

Internal Medicine Review

"An Intensive Review of Internal Medicine" will be conducted Aug. 16-21 by Jefferson Medical College and the University of Delaware on the Newark Campus of the University of Delaware.

The course carries 55 hours of Category 1 AMA credit and is designed for contemporary review and for those physicians who contemplate writing the American Board of Internal Medicine Certifying Examination.

Write Sylvia Brocka, 2800 Pennsylvania Ave., Wilmington, Del. 19806 or call (302) 738-8151.

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Adolescent treatment background with diversity in general adult psychiatry, to join an established, high energy, private psychiatric practice of 2 physicians, 5 non-medical clinicians and 5 support staff. Two-five years post residency experience preferred. The clinic functions in a beautifully restored Victorian mansion in downtown Indianapolis.

Clinical expertises include forensic, sexual, marital, addictions and crisis therapy with current expansion in adolescent. For great income potential and excellent benefits, please contact Mariann Davis, Tuesday, Thursday or Friday at:

The Davis Psychiatric Clinic
1431 N. Delaware St.
Indianapolis, IN 46202
Tel: (317) 634-9930

Indiana University CME Courses

Family Practice Review

Indiana University School of Medicine will again present its annual Family Practice Review course at the Sheraton West Hotel, Indianapolis. Part I will be April 13-15, and Part II will be June 15-17. Part I will discuss topics in cardiology, pulmonary diseases, obstetrics, neonatal medicine, the interpretation of laboratory tests, the treatment of chronic pain, and drug abuse. Part II will discuss topics in internal medicine, dermatology, otolaryngology, ophthalmology, urology, and orthopaedic surgery. There will be several workshop sessions. A syllabus will be provided.

Diabetes and Endocrinology Course

Indiana University School of Medicine and the American College of Physicians will present "Endocrinology and Diabetes for the General Internist" April 28-30, at the Sheraton West Hotel. The course is aimed at general internists and other primary care physicians and will discuss the practical management of the most common endocrine problems, including diabetes and thyroid disease. There will be workshop sessions, and a course syllabus will be provided.

Treatment of Hyperactive Children

The Department of Psychiatry of the Indiana University School of Medicine will present a course dealing with the treatment of attention deficit disorders (hyperactivity) April 14 at the Hilton Hotel in Indianapolis. The program is directed to family physicians, pediatricians, psychiatrists, psychologists, and social workers.

For additional information, please call the Division of Continuing Medical Education, (317) 264-8353.

Clinical Neurology Symposium

The fifth annual Symposium on Contemporary Clinical Neurology sponsored by Vanderbilt University will be held July 27-31 at the Palmetto Dunes Hyatt Resort, Hilton Head Island. For info write to Joan Sullivan, Department of Neurology, Vanderbilt University School of Medicine, Nashville, Tenn. 37212.

Sports Medicine Conference

Purdue University, Indiana University School of Medicine and the Lafayette Center for Medical Education will present their annual sports Medicine Conference for coaches, trainers, and physicians April 15 at West Lafayette, Indiana.

Please contact the Continuing Education Business office, Purdue University (317) 494-7221, for further details.



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AUXILIARY REPORT

Marianna (Mrs. Glenn W., Jr.) Irwin
President, ISMA Auxiliary



Mrs. Schuster

Anne Schuster
Chairman
1982 House of Delegates

A SPECIAL INVITATION IS EXTENDED TO ALL INDIANA STATE MEDICAL AUXILIARY MEMBERS AND THEIR SPOUSES TO TRAVEL TO EXCITING PLACES. Time and money for travel may be more limited these days, but you can still have an excellent opportunity to enjoy vicariously a CRUISE TO HAWAII, a FLIGHT TO MEXICO, a BUS TRIP TO THE COUNTRY WESTERN AREA OF TENNESSEE, and a TRAIN TRIP TO NEW ORLEANS, all in three days, AND at a budget price.

SPOUSES ARE INVITED TO JOIN US ON OUR COUNTRY WESTERN TRAIN TRIP. A taste of a vacation in each of these areas can be enjoyed by your making your reservations for the State Medical Auxiliary House of Delegates meeting at the Holiday North at the Pyramids in Indianapolis April 13,14, 15.

Wait a minute! That name is misleading because you don't have to be a delegate in order to attend this House of Delegates meeting. The pleasures of the social activities and the informative meetings are available to all paid Auxiliary members.

Particular attention of the men is called to the Wednesday evening, April 14th, COUNTRY WESTERN EVENING when the World Champion Cloggers will perform. A delicious dinner will be catered by Jug's. SPOUSES are invited to join the Auxiliary members to share the pleasure of Dr. and Mrs. John Pittman's "country barn" filled with antiques and memorabilia from the past. This reproduction of a country setting, combined with Euna's and John's hospitality will create an evening to remember. Watch the Auxiliary's *PULSE* publication for reservation forms.

The "Trip-Tik" is as follows: Tuesday evening, April 13-Hawaiian luau with delicious food and Hawaiian dancers; Wednesday noon, the flight to Mexico; Wednesday evening, the Country Western and Thursday noon, the train trip to New Orleans. Beautiful decorations will surround you; door prices will beckon you; the "City Market" will entice you. A good time awaits you.

Come join us and learn about *your* Medical Auxiliary and have an enjoyable three days while learning. Please come and help us honor our own member, Marianna Irwin, who is State President of the Auxiliary.

RESERVATIONS ARE REQUIRED IN ADVANCE. RESERVATION FORMS MAY BE FOUND IN *THE PULSE.*



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For your hypertensive patients,

Long-acting

Zaroxolyn® gives

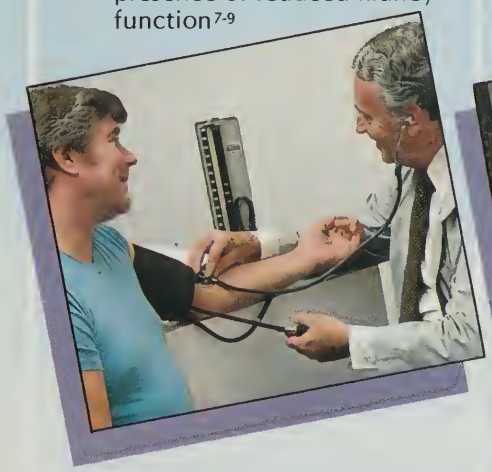
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Efficacy

Start with Zaroxolyn because of its unsurpassed effectiveness in Step-1 therapy.[1-4]

Stay with Zaroxolyn because it maintains effectiveness in long-term therapy[1,5,6]...and minimizes the need for Step-2 agents.

- ☐ Zaroxolyn's effectiveness is maintained even in the presence of reduced kidney function[7-9]



Compliance

Stay with Zaroxolyn because it maintains 24-hour blood pressure control with simple once-daily dosage, and only 4% discontinue therapy due to side effects!



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Stay with Zaroxolyn because clinically significant side effects are rare!

- ☐ Low incidence of changes in serum K^+, glucose metabolism, or uric acid levels



you what you want

Compatibility

Add to Zaroxolyn easily if Step-2 agents become necessary.

- ☐ Permits lower doses of Step-2 agents to minimize side effects
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- ☐ Less expensive than most other diuretics
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Start with...stay with...and add to...

Long-acting

Zaroxolyn®
(metolazone)

Gives you what you want in Step-1 antihypertensive therapy

Please see following page for prescribing information.



Long-acting

Zaroxolyn®

(metolazone) Pennwalt

2½ mg, 5 mg, 10 mg tablets

Gives you what you want in Step-1 antihypertensive therapy

- ☐ Unsurpassed Step-1 efficacy in mild to moderate hypertension
- ☐ True once-daily dosage for excellent patient compliance
- ☐ Positive side effect profile
- ☐ Strong foundation for stepped-care therapy
- ☐ Long-term economy

Before prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary. **Indications:** Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents, and also, edema associated with heart failure and renal disease. Routine use in pregnancy is inappropriate. **Contraindications:** Anuria, hepatic coma or precoma; allergy or hypersensitivity to Zaroxolyn. **Warnings:** In theory cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone. Hypokalemia may occur, and is a particular hazard in digitalized patients; dangerous or fatal arrhythmias may occur. Azotemia and hyperuricemia may be noted or precipitated. Considerable potentiation may occur when given concurrently with furosemide. When used concurrently with other antihypertensives, the dosage of the other agents should be reduced. Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia. Administration to women of childbearing age requires that potential benefits be weighed against possible hazards to the fetus. Zaroxolyn appears in the breast milk. Not for pediatric use. **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose. Observe patients for signs of fluid or electrolyte imbalance, namely hyponatremia, hypochloremic alkalosis and hypokalemia. These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered. Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Insulin requirements may be affected in diabetics. Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur. Zaroxolyn 10 mg tablets contain FD&C Yellow No. 5 (tartrazine) which may cause allergic-type reactions (including bronchial asthma) in certain susceptible individuals. Although the overall incidence of FD&C Yellow No. 5 (tartrazine) sensitivity in the general population is low, it is frequently seen in patients who also have aspirin sensitivity. **Adverse Reactions:** Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth, hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks. **Usual Initial Once-Daily Dosages:** mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg; edema of renal disease—5 to 20 mg. Dosage adjustment is usually necessary during the course of therapy. **How Supplied:** Tablets, 2½, 5 and 10 mg.

References: 1. Data on file, Medical Department, Pennwalt Pharmaceutical Division. 2. Sambhi MP, Eggena P, Barrett JD, et al: A crossover comparison of the effects of metolazone and hydrochlorothiazide therapy on blood pressure and renin angiotensin system in patients with essential hypertension, in Sambhi MP (ed): *Systemic Effects of Antihypertensive Agents*. New York, Stratton, 1976, pp 221-245. 3. Pilewski RM, Scheib ET, Misage JR, et al: Technique of controlled drug assay in hypertension: V. Comparison of hydrochlorothiazide with a new quinethazone diuretic, metolazone. *Clin Pharmacol Ther* 12:843-848, 1971. 4. Fotiu S, Mroczek WJ, Davidov M, et al: Antihypertensive efficacy of metolazone. *Clin Pharmacol Ther* 16:318-321, 1974. 5. Cangiano JL: Effects of prolonged administration of metolazone in the treatment of essential hypertension. *Current Therapeutic Research* 20:745-750, 1976. 6. Dornfeld L, Kane RE: Metolazone in essential hypertension: The long-term clinical efficacy of a new diuretic. *Current Therapeutic Research* 18:527-533, 1975. 7. Puschett JB: Physiologic basis for the use of new and older diuretics in congestive heart failure. *Cardiovascular Medicine* 2:119-134, 1977. 8. Craswell PW, Ezzat E, Kopstein J, et al: Use of metolazone, a new diuretic, in patients with renal disease. *Nephron* 12:63-73, 1973. 9. Bennett WM, Porter GA: Efficacy and safety of metolazone in renal failure and the nephrotic syndrome. *J Clin Pharmacol* 13:357-364, 1973. 10. *Drug Topics Red Book 1981*, and manufacturers' suggested prices.

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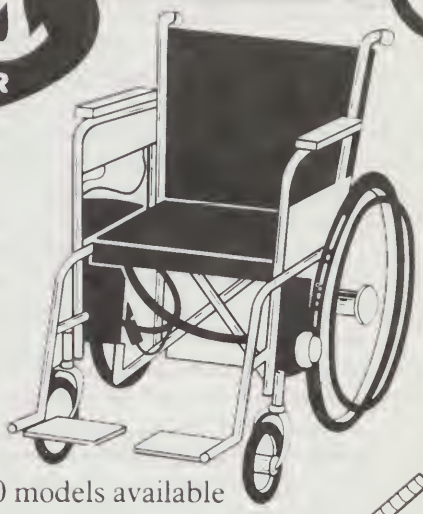
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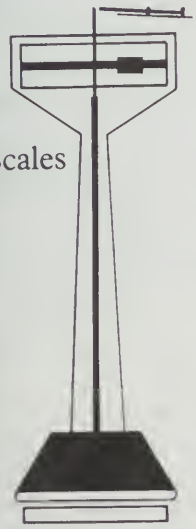
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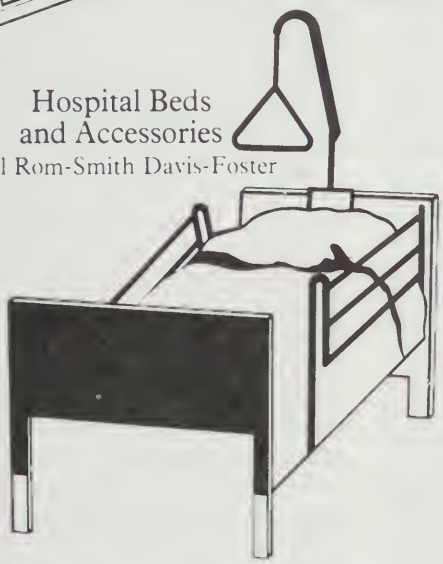


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BOOK REVIEWS

Hospice: Complete Care for the Terminally Ill

Jack M. Zimmerman, M.D. Copyright 1981, Urban & Schwarzenberg, Baltimore. 183 pages, hard cover.

The author is Associate Professor of Surgery at Johns Hopkins University. He practices and teaches surgery at the Johns Hopkins Hospital and Church Hospital in Baltimore. This volume is written quite obviously from the physician's standpoint. For that reason physicians, in particular, will find in it the authentic, practical information needed to clarify the sometimes vague and confused impressions that have been gained from the news media and other sources not concerned primarily with the central role of the doctor in Hospice care.

Dr. Zimmerman emphasizes from the outset that Hospice care is not for every incurable patient. In his sensible view it is comprehensive *palliative* care for patients whose life expectancy is less than six months and more than five days. The greatest proportion of patients with which it is concerned will be those with terminal cancer, but others with a predictably short outlook for survival should not be excluded.

When *palliation* is the goal skillful and consistent administration of drugs is of paramount importance. Accompanying measures include 1) constant emotional and spiritual support for the patient and his family; 2) relaxing of hospital rules to include more or less unlimited visiting by family members and special friends, smoking and moderate use of alcohol; 3) aid by the Social Service Department in taking advantage of services of any local agencies to help with home care and financing; 4) the use of other modalities such as radiation, nerve block and the like to relieve pain and anxiety.

The chapter on symptom control will be of special interest to physicians. In the Hospice setting, long term side effects are less important than keeping the patient comfortable for the limited period required. Administration of drugs, including narcotics, at regular intervals of four to six hours in anticipation of recurring pain is useful. In most Hospice settings medicines are given orally whenever possible. Steroids, usually dexamethasone or prednisone in modest doses, have been very helpful in allaying pain and combatting profound weakness and anorexia.

When hospitals get into the organization efforts of setting up Hospice programs they are confronted with such questions as—should we have only a hospital unit clearly designed for the patients described above and/or an organization for caring for terminal patients in their homes? Should the Hospice be free standing with its own board responsible for financing, staffing and operation; or should it be under the hospital umbrella, undergirded by the hospital administration and board, no matter how responsibility is delegated?

In Zimmerman's experience it seems unrealistic to think that the Hospice enterprise can be carried on exclusively as either hospital or home based. Most, but not all, patients it serves will be hospitalized at the start of their terminal care and some transferred for care at home will need to be hospitalized again for one of a variety of reasons before they die. So some consideration must be given to both types of care, regardless of the particular situation in any given community.

The author, who is Chief of Surgery at Church Hospital in Baltimore, serves as chairman of that hospital's Hospice Care Committee. Throughout his book he stresses the necessity for making this care a team effort. In the Church Hospital the team includes a Hospice physician, social worker, chaplain, physical therapist and volunteers. Indispensable in the operation also are nurses and nurse aides serving in the hospital and also in the patients' homes. These people, as well as volunteers, receive specialized training in dealing with the unique problems of terminally ill persons and their families. In the Church Hospital a clinical nurse practitioner plays an important role in acting as a surrogate for the patient's private physician in making decisions regarding eligibility for care, administration of drugs, etc. when the private physician of the patient is not available. However, Zimmerman continually reminds us that in the Church Hospital scheme, as in practically all other Hospice organizations, each patient remains under the direction of his own physician unless the latter prefers to relinquish his responsibility to the designated Hospice physician or nurse practitioner.

No practicing physician who day by day confronts the frustrating problems of terminally ill patients can seriously question the immense value of the services which a well run Hospice service can supply. Many such efforts have been unsuccessful because their objectives have been unclear and their organization inadequate. For Hospice planning groups who want to gain a better understanding of what they are about, this book by a physician for physicians and their professional associates will supply most useful guidance.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

DOUBLEDAY has released *Lifelong Sexual Vigor: How to Avoid and Overcome Impotence* by Marvin B. Brooks, M.D., a urologist, and Sally West Brooks, R.N., his wife. Dr. Brooks, in writing the introduction, states his intention is "to provide the information necessary for the individual or couple plagued with the problem of impotence to find the cause and to regain the satisfaction of sexual intercourse . . . It is also hoped that we will help many to avoid ever becoming victims of impotence and to spare them the mental anguish that frequently results." $12.95.

The Physicians' Drug Manual: Prescription and Nonprescription Drugs

Edited by Rubin Bressler, M.D., Morton D. Bogdonoff, M.D., and Genell J. Subak-Sharpe, M.S. Copyright 1981, Doubleday & Company, Inc., Garden City, N.Y. 1,228 pages, $17.95.

Nineteenth Century American mothers, and even their modern counterparts, have often had a handy layman's reference to assist diagnosis of common ailments. In the days before the telephone and easy communication with the doctor even treatment was frequently necessarily the home variety. This present volume will suffice admirably for these functions today and allow patients to check their various medications in our age of polypharmacy.

It is a large book on cheap paper of 1209 pages divided into 14 categories according to systems such as gastrointestinal, hormonal and cardiovascular. Each section is preceded by a brief outline of relevant physiology and pathology. These are succinct and knowledgeable. Another chapter is devoted to miscellaneous drugs (curiously, a chapter on genito-urinary disorders is lacking) and there are also sections devoted to a glossary and valuable pages on drug identification.

This is a useful book to have around the house and I can picture an elderly patient or a mother of small children checking the prescribed medication for possible side effects and drug interactions. Even in this time of "consumerism," a volume such as this would serve an exceedingly useful function. No family should be without it!

Rodney A. Mannion, M.D.
LaPorte
Urological Surgery

THIEME-STRATTON has published *Disputed Paternity* by Neville J. Bryant, A.R.T., F.A.C.B.S., of Serological Services, Toronto, Canada. The book is divided into three sections: Inheritance, Blood as a Forensic Indicator, and Legal Aspects. It is designed for both legal and medical persons. 185 pages, $24.

DELL PUBLISHING announces Hugh Downs' new book, *The Best Years Book,* advice on how to prepare for retirement. Financial, mental and physical activity, diet and exercise considerations are discussed. How to change jobs after 50 and whether to work part time after full-time retirement? Also, how to decide where to live. $8.95.

VAN NOSTRAND REINHOLD has released *Psychological Aspects of Obesity: A Handbook*, edited by Benjamin B. Wolman, Ph.D. A team of experts comprehensively trace all the psychological roots of obesity. They probe the etiology and symptomatology of the disease and zero in on proven treatments for controlling it. 336 pages, 10 illustrations, $24.50.

General Urology

Edited by Donald R. Smith, M.D., 10th Edition. Copyright 1981, Lange Medical Publications, Los Altos, Calif. 578 pages, $19.50.

This new edition has been greatly enlarged and updated and consists of a very helpful, complete bibliography at the end of each chapter for reference. Twenty-three authors of multiple disciplines have contributed to this edition which includes expanded sections on ultrasonic examination of the urinary tract, radioisotopic kidney studies, immunology of genitourinary tumors and urologic aspects of andrology in addition to the usually found topics of a general urology text book.

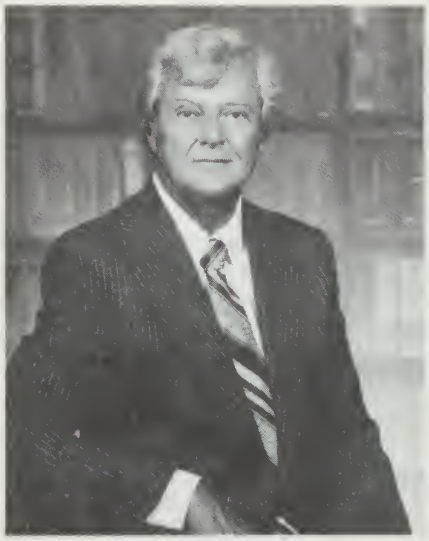
Typographic errors abound particularly in dosage regimes. For instance, in the treatment of idiopathic oligospermia the dosage for Clomid is stated as 2.5 mg. per day rather than 25 mg. per day. Similarly the dosage of DMSO in the treatment of interstitial cystitis is erroneously given as 5 ml of 50 per cent of dimethyl sulfoxide rather than 50 cc's. These faults are combined with some real assets such as easy readability and a style comprehensible to students, residents and family physicians. While not intended for the practicing urologist, this book is altogether practical and sensible and should be enormously useful as a general survey and reference source.

William B. Rank, M.D.
Fort Wayne
Urological Surgery

GOWER PUBLISHING has released *Legal Issues in Medicine,* a collection of specialist essays on legal and ethical issues in the practice of medicine, edited by Sheila McLean. Contents include collective responsibility in health care; medical products liability; professional liability; medical genetics and the law; artificial insemination and sterilization. 219 pages, $39.

ILLEGITIMACY PREVENTION SERVICE is selling a booklet called *But He Told Me He Loved Me: A Handy Guide for Remaining Unpregnant.* It is written by Mitchell Messer, a family and marital counselor, for parents, teachers, clergymen and counselors. It deals principally with the psychological reasons underlying the surface excuses for a single teen-age girl getting pregnant. The price is $2.00 with rates for large orders. The address is Suite 1105, 111 N. Wabash, Chicago 60602.

DOUBLEDAY has released a new edition of *The Changing Years.* The author is Madelaine Gray, a professional writer who knows the menopause as a result of a surgical menopause at age 44. She covers the signs, symptoms, discomforts and fears, and includes the newer medical findings and attitudes. A prominent gynecologist has described the book as "the best book on the menopause." $13.95, 288 pages.



MARTIN J. O'NEILL, M.D.
President
Indiana State Medical Association

IPIC STOCK: Let's Buy to Insure!

A Message from the President

FIFTY-EIGHT YEARS ago it was reported in THE JOURNAL of the ISMA that the premium rates for life insurance, considered a necessity by men in all vocations, were too high. Three years later it was written that ". . . there is no reason why physicians should not organize a mutual insurance company . . . to take on all forms of insurance . . ."

Now, 55 years later and after careful consideration of alternatives, we finally have accomplished what was recognized as a viable alternative to high premium rates and the lack of responsiveness of the insurance industry to physicians' needs by creating a physician-owned life insurance company. Much to my dismay, however, this decision is still being questioned by a large number of ISMA members through their reluctance to purchase Indiana Physicians Investment Company (IPIC) stock.

The Indiana Physicians Life Insurance Company (IPLIC) was capitalized in October 1981 by the Physicians Insurance Company of Ohio (PICO) with the purchase of $2.1 million of the common stock of IPIC, an insurance holding company formed to facilitate the capitalization of IPLIC.

Since that time, First Securities Corporation, represented by its executive vice-president, Larry Stephens, has been contacting ISMA members concerning the purchase of IPIC stock, and that is what I would like to address at this time.

Although ISMA members have thus far committed to purchase more than $800,000 in IPIC stock, I am disappointed that we are not doing much better.

First, let me say that I believe in IPIC and IPLIC and in what they mean in benefits to ISMA members now and in the future; and that is why I made my investment. Other officers and trustees of ISMA may have different reasons, but they also have invested.

At this writing IPLIC is operational and is offering a Group Term Life Insurance policy that is lower in cost than any comparable product available. We expect that other products developed by IPLIC will provide similar savings to members. Therefore, if each member took the savings from the reduced rate of his/her Group Term Life Insurance policy, estimated to be more than $3,500 during the next 10 years for a physician 50 years old, and invested it in IPIC, it would "insure" that benefit being there in the future. It also would facilitate the development of future products which would produce even greater savings—not to mention the long-term growth of his/her investment in IPIC.

If we all help, the entire stock sale can be accomplished with a very small individual investment. A $1,000 investment by 2,000 ISMA members would purchase the stock that PICO bought to capitalize IPLIC. Another $1,000 investment would purchase the remaining shares available under the registration statement declared effective by the Securities and Exchange Commission Sept. 28, 1981.

I would like to see IPIC stock purchased by a majority of ISMA members for three reasons: 1) It will give each member access to a multitude of insurance programs that will benefit him, his family, and his office practice now and in the future at costs lower than the market offers today; 2) It will insure the availability of IPLIC insurance products to new members in the future; and 3) The broad base participation of ISMA members will help to assure the success of IPLIC.

Please remember that the original reason for starting IPLIC was to provide a financial and mechanical base upon which to quickly establish a professional liability company when it is needed. I don't think we can ignore the facts that point to another medical liability crisis in the near future, and there is no way to predict what will happen when it comes. I think we should be as well prepared as possible, and IPLIC gives us that edge.

Please join me in "insuring" the success of IPLIC by purchasing stock in IPIC today. Remember, there is no minimum purchase required and, the broader the base of participation, the more responsive the Company will be to the membership.

Please contact Larry Stephens, IPIC's stock sales representative, at 317-925-2937 (from Indianapolis) or 800-772-7244 (outside Indianapolis) and tell him of your commitment—whether it be for 10 shares or 500 shares. If everyone participates and purchases a small number of shares, he would not be risking a great amount of capital and yet he would be helping his Association—and, consequently, himself.



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Comparison of Anorectics

	Agent	Amine Classification	Half-life[a]	Variety of Dosage Form	Degree of CNS Effects
Low Abuse Potential	**Diethylpropion**	Tertiary	4-6 hrs.	25 mg tablet, 75 mg controlled-release tablet	Mild euphoria, mild stimulation
	Mazindol	Nonphenylethyl-amine	33-55 hrs.	1 & 2 mg tablet	Mild euphoria, mild stimulation
	Fenfluramine	Secondary	10-30 hrs.	20 mg tablet	Moderate sedation (mild to moderate depression, a side effect, is also sometimes designated as a CNS effect)
	Phentermine	Primary	19-24 hrs.	8 & 37.5 mg tablet 8, 15 & 30 mg capsule 15 & 30 mg capsule (resin complex) 15 & 30 mg timed release capsule	Mild euphoria, moderate stimulation
High Abuse Potential	**Phenmetrazine**	Secondary	7-9 hrs.	25 mg tablet, 50 & 75 mg prolonged action tablet	Marked euphoria, marked stimulation
	Amphetamine	Primary	10-30 hrs.	Various	Marked euphoria, marked stimulation

[a]Delayed release characteristics of certain dosage forms must also be taken into account.

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Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect: rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personalty changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of June, 1980

Reference: 1. Abramson R, Garg M, Cioffari A, and Rotman PA; An Evaluation of Behavioral Techniques Reinforced with an Anorectic Drug in a Double-Blind Weight Loss Study. J Clin Psych 41:234-237, 1980.

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Perinatal Diagnoses
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Elizabeth Thomson, RN, U. of Iowa
Evaluating Fetal Wastage
Sherman Elias, MD, Northwestern U.
Human Cytogenetics
James Higgins, MD, MSU
Diagnosing Congenital Anomalies
Peter Grannum, MD, Yale
Diagnosing Inborn Errors
Henry Nadler, MD, WSU
Diagnosing the Dysmorphic Child
Murray Feingold, MD, Tufts

April 15

Screening for Metabolic Abnormalities
Michael Kaback, MD, UCLA
Serum Alpha Fetaprotein Screening
James Haddow, MD, Scarborough, MA
Teratogens: Environmental Hazards
James Hanson, MD, U. of Iowa
Michigan Genetic Disease Program
William Young, PhD, Lansing
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Margery Shaw, MD, JD, Houston
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NEWS NOTES

'Smoke Inhalation' Pamphlet

A new eight-page pamphlet, "Smoke Inhalation," is being offered to physicians at a cost of 5¢ each.

The pamphlet was prepared by the ISMA Public Relations Department, which is handling requests and shipping. It is a primer intended for ultimate distribution to the general public.

The pamphlet discusses "Smoke: The Silent Killer," the importance of planning ahead for home evacuation in case of fire, what to do if fire strikes, how smoke detectors can save lives, and emergency treatment for smoke inhalation.

To order, write ISMA, 3935 N. Meridian St., Indianapolis, Ind. 46208.

ISMA Cited by AMA for Membership

For the third consecutive year, the Indiana State Medical Association has surpassed its AMA membership total for the previous year.

ISMA's achievement was recognized at the 10th annual AMA National Leadership Conference last month.

Dr. Daniel T. Cloud, AMA president, credited the membership growth to "dedicated leadership and staff." He addressed his remarks in a letter to Dr. Martin J. O'Neill, ISMA president.

More than 90% of ISMA's active members are also AMA members.

Aspirin Foundation Formed

Aspirin has been in use as a medicine for 82 years and is still mysterious. The recently founded Aspirin Foundation of America was formed to advance the continuing study of the drug, which has become more useful and more interesting with worldwide massive use.

The Foundation will conduct a symposium on April 21 to 23 at Tulane University School of Medicine in New Orleans. Participants will include 18 internationally recognized medical authorities.

I.U. Seeks Director Nominations

Nominations for the position of director of the Evansville Center for Medical Education are now being accepted.

The position is presently occupied by Dr. Patrick J. V. Corcoran, who will retire June 30. He has been director since January 1971.

Nominations should be sent to Douglas A. Triplett, M.D., chairman, Search and Screen Committee, Office of the Dean, Indiana University School of Medicine, 1100 W. Michigan St., Indianapolis, Ind. 46223. (Indiana University is an equal opportunity, affirmative action educator, employer and contractor, M/F.)

Sports Med HQ Coming to Indiana

The American College of Sports Medicine has announced that it will move its headquarters to Indianapolis, beginning in August.

The headquarters has been at Madison, Wisc., since the college was founded in 1954. It will be housed in temporary offices of the IUPUI Indianapolis natatorium, which is under construction.

The college plans to hold its 1986 national convention in Indianapolis.

Post to Emphasize Medical Stories

The *Saturday Evening Post* was purchased in January from the Curtis Publishing Company by the Benjamin Franklin Literary and Medical Society.

Dr. Cory SerVaas, editor and publisher of the *Post,* said, "We will be concentrating on medical stories, on how people can help themselves and on progressive ideas in the health field."

The editorial offices of the *Post* will remain in Indianapolis.



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NEWS NOTES

New Radiation Therapy Machine

A new, highly versatile radiation therapy machine of Swedish manufacture will be made possible for the therapeutic radiation program at Indiana University School of Medicine as a result of a grant from the Indiana Lions Clubs Cancer Control Fund.

The Radiation Therapy Department, for several years, has operated a French-built 40 million electron volt linear accelerator, which was provided by the Lions Club Fund.

The new acquisition is known as the Scanditronix Medical Microtron. It is not as powerful as the linear accelerator but is more flexible and versatile. It has a 21 million volt x-ray beam and also a 6 million volt x-ray beam which is suitable for superficial lesions. It operates as an electron accelerator and will be able to function in three treatment rooms simultaneously since the electron beam can be transmitted under magnetic control through vacuum pipes to various locations.

VA Health Care Services

The VA has proposed guidelines for carrying out the provisions of a new law which authorizes the VA to provide certain health care services to any veteran of the Vietnam Era, Aug. 5, 1964 to May 7, 1975, who, while serving in Vietnam may have been exposed to dioxin or was exposed to a toxic substance in a herbicide or defoliant used for military purposes.

The guidelines will be published in the "Federal Register" and public comment will be invited. The law provides for health care only. A determination that a veteran is eligible for such care does not constitute a basis for service connection or in any way affect determinations regarding service connection.

Here and There . . .

. . . **Dr. Robert H. Musselman Jr.** has been elected president of the medical-dental staff, St. Joseph's Hospital, Fort Wayne; **Dr. Samuel R. Thompson** was elected president-elect and **Dr. David A. Sorg,** secretary-treasurer.

. . . **Dr. R. S. Farag** has been elected president of the medical staff, Dukes Memorial Hospital, Peru; **Dr. Maurice D. Sixbey** was elected vice-president and **Dr. Amando L. Baluyut,** secretary.

. . . **Dr. James P. Scudder** has been elected president of the medical staff, Parkview Memorial Hospital, Fort Wayne; **Dr. James P. Sidell** was elected president-elect and **Dr. Thomas J. Hicks,** secretary-treasurer.

. . . **Dr. Richard N. Dexter** of Indianapolis has been elected to the AMA's Continuing Medical Education Committee.

. . . **Dr. Roland C. Ahlbrand** of Fort Wayne discussed "Medical Cost Containment" during a January meeting of the Kosciusko County Personnel Association in Warsaw.

. . . **Dr. William A. Clunie** of Huntington has been appointed to a four-year term on the Huntington County Board of Health. He succeeded **Dr. Stanley M. Casey.**

. . . **Dr. Harvey C. Boyd,** a Terre Haute gynecologist, retired in January. He was senior member of the Dept. of OB-GYN at the Associated Physicians & Surgeons Clinic.

. . . **Dr. Dwight W. Schuster** of Indianapolis will receive the Jesse Ansley Griffin Gold Medal at this month's meeting of the Grand Chapter, Phi Rho Sigma Medical Society.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Asher, James W., Indianapolis
Blythe, Jerry E., Indianapolis
Boonjarern, Sampanta, Lowell
Burg, Howard E., Evansville
Caylor, Charles H., Bluffton
Dehner, John R., Richmond
Deogracias, Francisco D., Edinburg
Dyken, Mark L., Indianapolis
Felger, Thomas A., Fort Wayne
Fuller, Robert G., Columbus
Goldsmith, David A., Marion
Greenlee, James R., Elkhart
Griest, Walter D., Fort Wayne
Grosz, Hanus J., Indianapolis
Hirsch, Herman L., Mount Vernon
Kamen, Jack M., Gary
Koenig, Robert L., Valparaiso
Langston, Edward L., Flora
Luerssen, Thomas G., South Bend
Manders, Karl L., Indianapolis
Moss, Herschel C., Indianapolis
Neil, Wilbur A., Terre Haute
Pietz, David G., Bluffton
Qazi, Haroon M., Indianapolis
Radcliff, Forrest F., Evansville
Rougraff, Maurice E., Indianapolis
Russell, John R., Indianapolis
Showalter, John R., Terre Haute
Sprecher, James J., La Porte
Stephens, Donald E., Indianapolis
Stratigos, Joseph S., South Bend
Tweedall, Daniel C., Evansville
Wagner, Virginia M., Indianapolis
Wahle, William M., Indianapolis
Walter, Robert F., Evansville

. . . **Dr. Clare M. Assue** has been named superintendent and medical director at Larue D. Carter Memorial Hospital, Indianapolis.

. . . **Dr. Raleigh E. Lingeman** and **Dr. Alvin J. Haley,** Indianapolis, have been elected to the AMA's Family Practice Residency Review Committee.

. . . **Dr. Ronald T. Maus** has been elected president of the medical staff, St. Joseph Memorial Hospital, Kokomo; **Dr. Thomas R. Scherschel** was elected president-elect and **Dr. Willis W. Peelle,** secretary.

. . . **Dr. Sarto Antao** has been elected chief of staff at Howard Community Hospital, Kokomo; **Dr. Peter H. Scott** was elected vice-chief of staff and **Dr. Robert H. Adams,** secretary.

. . . **Dr. J. Ronald Waddell** has been elected president of the medical staff, St. Mary's Medical Center, Evansville; **Dr. Mark E. Meyers** was elected vice-president and **Dr. Donald V. Elshoff,** secretary-treasurer.

. . . **Dr. Harley P. Palmer** of Franklin has been elected chief of the medical staff at Morgan County Memorial Hospital, Martinsville; **Dr. John L. Reynolds** was elected vice-chief of staff and **Dr. William R. Jones,** secretary-treasurer.

. . . **Dr. Stanley R. Adkins** has been elected chief of the medical staff at Bartholomew County Hospital, Columbus, succeeding **Dr. David G. Yahnke. Dr. Robert L. Forste** was elected chief of staff-elect, and **Dr. Joseph C. Sheehy** was elected secretary.

. . . **Dr. V. D. Patel** of Terre Haute has been named a diplomate of the American Board of Family Practice.

. . . **Dr. Lowell W. Painter** of Winchester has been presented a plaque by the Randolph County Hospital in recognition of his 50 years of service.

. . . **Dr. Felipe S. Chua** has assumed the presidency of the medical staff at St. Anthony Medical Center, Crown Point, succeeding **Dr. William A. Misch; Dr. Arthur J. Beckman** was elected president-elect, **Dr. Alfred L. Bonjean,** secretary, and **Dr. Joseph A. Kacmar,** treasurer.

. . . **Dr. Bryce B. Rohrer** of Walkerton discussed the early detection of drug abuse and alcoholism during a January parent awareness program in Westchester.

. . . **Dr. G. Paul DeRosa** of Indianapolis has been inducted as a member of the American Orthopaedic Foot Society.

. . . **Dr. Thomas M. Turner** of Vincennes has been named a Fellow of the American Academy of Orthopaedic Surgeons.

. . . **Dr. Otis R. Bowen,** former Indiana governor, has been named chairman of the 1982 Indiana Cancer Crusade.

. . . **Dr. Albert J. Costello** of Munster has been named medical director of Hospice of Northwest Indiana, Inc., Merrillville. **Dr. Daniel T. Ramker** is co-director.

. . . **Dr. Knight L. Kissinger** of Angola, 75, recently completed his 35th year as Steuben County Health Officer. He continues to maintain his private practice.

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5—Paul Siebenmargen, Terre Haute (Chairman)	Oct. 1984
6—Davis W. Ellis, Rushville	Oct. 1982
7—Danald C. McCallum, Indianapalis	Oct. 1983
7—H. Marshall Trusler, Indianapalis	Oct. 1984
8—Richard L. Reedy, Yarktown	Oct. 1984
9—Max N. Haffman, Cavingtan	Oct. 1982
10—Charles D. Egnatz, Shererville	Oct. 1983
11—Herbert C. Khalauf, Marion	Oct. 1984
12—Michael O. Mellinger, LaGrange	Oct. 1982
13—Donald S. Chamberlain, Sauth Bend	Oct. 1983

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3—Eli Hallal, New Albany	Oct. 1983
4—William E. Caaper, Calumbus	Oct. 1982
5—Benny Ka, Terre Haute	Oct. 1982
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7—Garry Bolinger, Indianapolis	Oct. 1982
8—William C. VanNess II, Alexandria	Oct. 1982
9—Lawell R. Stephens, Covingtan	Oct. 1983
10—Walfred A. Nelson, Gary	Oct. 1982
11—Edward L. Langstan, Flara	Oct. 1983
12—Thamas A. Felger, Fart Wayne	Oct. 1983
13—Jahn W. Luce, Michigan City	Oct. 1982

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Alternates: Arvine G. Papplewell, Indianapalis; G. Beach Gattman, Elkhart; Vincent J. Santare, Munster.

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District	President	Secretary	Place, Date of Meeting
1.	John D. Pulcini, Evansville	Kent McKinney, Newburgh	June 17, 1982, Evansville
2.	Thamas E. Bailey, Lintan	Betty J. Dukes, Dugger	
3.	Wallace D. Jahnsan, Bedford	Peter H. Livingstan, Bedford	April 24,25, 1982, Spring Mill Park
4.	Ricarda C. Daminga, Greensburg	Rabert P. Acher, Greensburg	May 26, Greensburg
5.	J. Franklin Swaim, Rackville	Daniel J. Dwyer, Rackville	Rackville
6.	William F. Kerrigan, Cannersville	Wylie G. McGlathlin, New Castle	1982, New Castle
7.	Warren L. Gray, Martinsville	M. O. Scamaharn, Pittsbara	June 9
8.	Caral R. Chambers, Unian City	Susan K. Pyle, Union City	June 23, 1982, Muncie
9.	Lawell R. Stephens, Cavingtan	Theadare C. Persan, Veedersburg	June 24, 1982, Attica
10.	Lee H. Trachtenberg, Munster	Barran M. F. Palmer, Hammand	Sept. 22, 1982
11.	Edward L. Langstan, Flara	Fred Paehler, Wabash	Sept. 15, 1982
12.	Linus J. Minick, Churubusca	A. B. Donesa, Fort Wayne	Sept. 16, 1982, Fart Wayne
13.	Donald L. Weninger, Michigan City	G. Richard Green, Sauth Bend	Sept. 8, 1982, Michigan City

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OBITUARIES

R. Ross Fowler, M.D.

Dr. Fowler, 61, a Bloomington physician for more than 30 years, died Nov. 16 at Bloomington Hospital.

He was a 1945 graduate of Indiana University School of Medicine.

Dr. Fowler, who served as an intern at South Bend Memorial Hospital until 1946, opened his Bloomington practice in 1949. He had a teaching appointment at Indiana University from 1967-69.

Nicholas W. Hatfield, M.D.

Dr. Hatfield, 71, a retired Indianapolis physician who formerly practiced in Brightwood, died Dec. 19 in Community Hospital, Indianapolis.

He was a 1935 graduate of Jefferson Medical College, Philadelphia, and was an Army veteran of World War II, during which he won the Silver Star.

Dr. Hatfield retired in 1975 after working 10 years as a disability reviewing physician for the Social Security Administration. He was a member of the American Academy of Family Physicians.

V. Earle Wiseman, M.D.

Dr. Wiseman, 85, a retired Greencastle surgeon, died Jan. 4 in Putnam County Hospital, Greencastle.

He was a 1928 graduate of Indiana University School of Medicine and was a World War I veteran.

Dr. Wiseman practiced in Greencastle from 1932 until he retired in 1971. He was a former president of the Putnam County Medical Society and was a former ISMA Fifth District trustee. He was enrolled in the ISMA Fifty Year Club in 1978.

George M. Rosenheimer, M.D.

Dr. Rosenheimer, 83, a retired South Bend anesthesiologist, died Jan. 2 in Memorial Hospital, South Bend.

He was a 1924 graduate of Indiana University School of Medicine. He retired in 1974.

Dr. Rosenheimer, who was certified by the American Board of Anesthesiology, became a member of the ISMA Fifty Year Club in 1974.

Harry W. Fitzpatrick, M.D.

Dr. Fitzpatrick, 93, a retired Elwood general practitioner, died Dec. 20 at the Dicky Nursing Home, Elwood.

He was a 1913 graduate of the University of Cincinnati College of Medicine.

Dr. Fitzpatrick practiced in Elwood for 50 years before retiring in 1973. He was enrolled in the ISMA Fifty Year Club in 1963.

Lowell R. Steele, M.D.

Dr. Steele, a retired Indianapolis-area surgeon, died Jan. 8 at Marquette Manor Health Center, Indianapolis.

A 1941 graduate of Indiana University School of Medicine, he served as an Army physician for 24 years, retiring in 1965 as a colonel.

Dr. Steele began a private practice in 1968 and was associated with Kendrick Memorial Hospital, Mooresville, until he retired last year. He was a Fellow of the American College of Surgeons and of the International College of Proctologists. He was a former president of the Morgan County Medical Society.

Lyman D. Eaton, M.D.

Dr. Eaton, 75, a retired Indianapolis internist, died Jan. 10 in St. Vincent Hospital, Indianapolis.

He was a 1939 graduate of Indiana University School of Medicine. He retired in 1980.

Dr. Eaton was a professor of economics and accounting before earning his medical degree. In 1931 he helped formulate laws for Indiana's banking industry. He was medical director for Indiana Farm Bureau from 1946 to 1956. His memberships included the International College of Surgeons.

Marvin P. Cuthbert, M.D.

Dr. Cuthbert, 71, a retired Indianapolis ophthalmologist, died Dec. 31 in Wickenburg (Arizona) Community Hospital.

He was a 1937 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Cuthbert, noted for performing the first successful corneal transplants in Indiana, retired last year. He was a Fellow of the International College of Surgeons and a member of the American Academy of Ophthalmology and Otolaryngology.

Louis T. Kudele, M.D.

Dr. Kudele, 72, a Whiting anesthesiologist, died Nov. 29, 1981.

He was a 1934 graduate of Loyola University Stritch School of Medicine.

William W. Bronson, M.D.

Dr. Bronson, 68, a Richmond physician, died Aug. 16, 1981, in Reid Memorial Hospital, Richmond.

He was a 1941 graduate of Wayne State University School of Medicine, Detroit.

Dr. Bronson's professional affiliations included the American Society of Abdominal Surgeons, American College of Surgeons, International College of Surgeons, and the American College of Emergency Physicians.

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WHAT'S NEW?

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BRENTWOOD markets the EZone, a solid state, single channel electrocardiograph designed for ease of operation and reliability. It operates on AC or optional DC battery. Features two paper speeds, three sensitivity settings, lead marker, output jack, full 12 lead recording capability and AC filter for clean tracings. Weighs only 10 lbs. A mobile card is optional.

SEARLE has received FDA approval to market Flagyl I.V.™ RTU™ (metronidazole), 100 milliliter Viaflex® plastic containers by Travenol. It will be the first ready-to-use anti-infective drug in a flexible container for intravenous use. Flagyl I.V. is used extensively in treatment for serious anaerobic infections such as peritonitis, intra-abdominal abscesses and respiratory infections.

THE PURDUE FREDERICK COMPANY, a pharmaceutical research complex, announces the perfection and early marketing of FiberMed™, a biscuit formulated to contain 5 grams of dietary fiber, in a tasty and appetizing medium which goes well with hot or cold drinks and with fruit or cheese. FiberMed is marketed to supply fiber to diets deficient in fiber due to food processing. FiberMed will be available in drug stores and drug departments.

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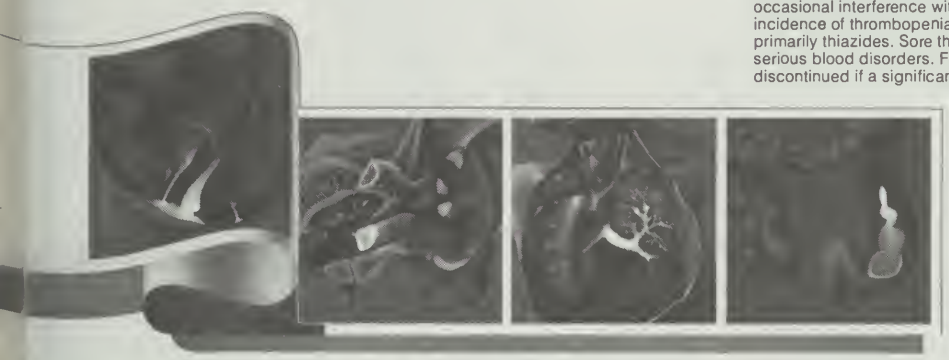
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Alao for the treatment of documented *Pneumocyatis carinii* pneumonitis. To date, thia drug haa been teated only in patients 9 months to 16 years of age who were immunoauppreaaed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Doaage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

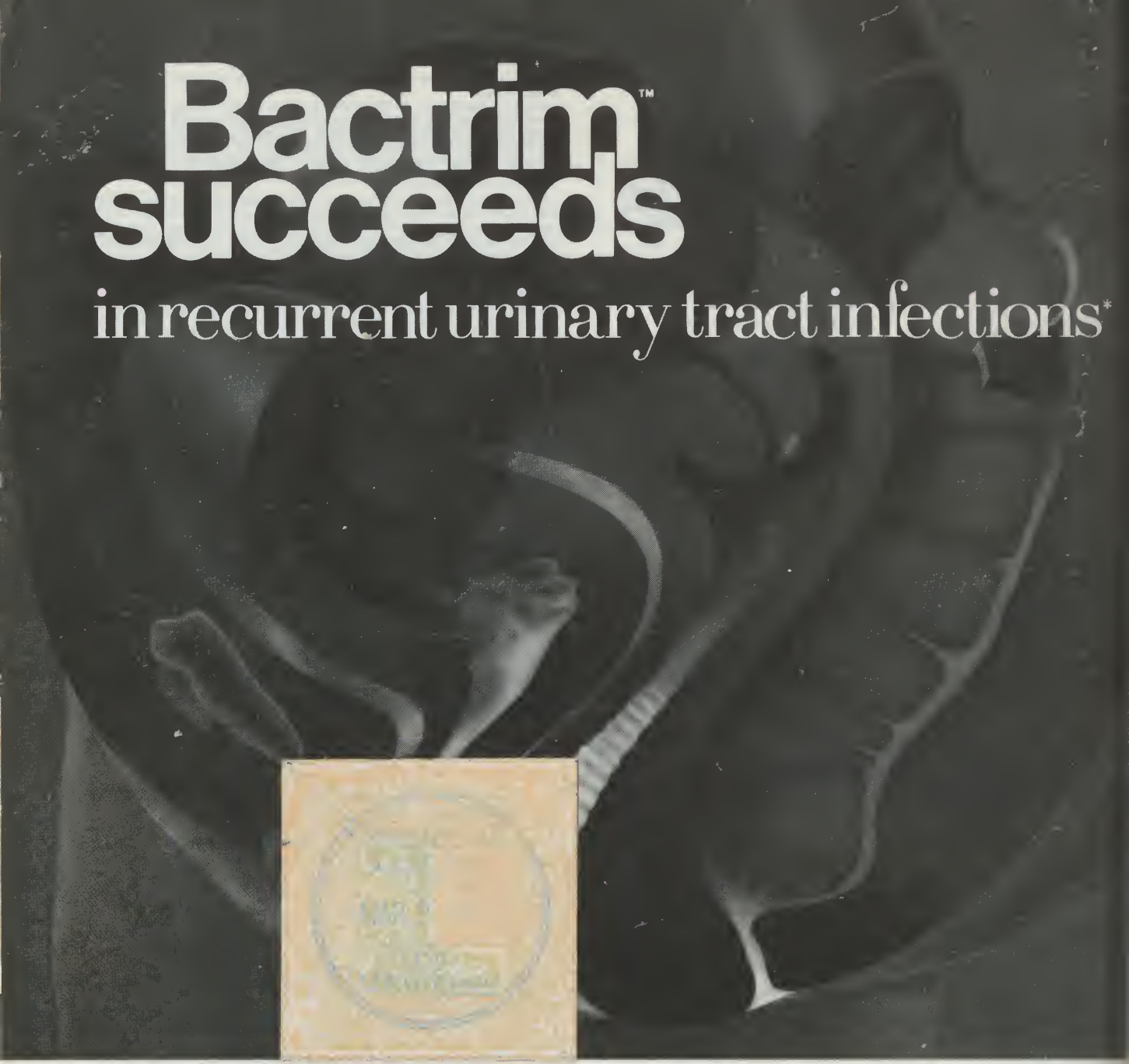
Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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Bactrim continues to demonstrate high clinical effectiveness in recurrent urinary tract infections. Bactrim reaches effective levels in urine, serum, and renal tissue[1]...the trimethoprim component diffuses into vaginal secretions in bactericidal concentrations[1]... and in the fecal flora, Bactrim effectively suppresses Enterobacteriaceae[1,2] with little resulting emergence of resistant organisms.

1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980..**2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

Bactrim™ DS

160 mg trimethoprim and 800 mg sulfamethoxazole

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maximizes results with B.I.D. convenience

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* due to susceptible strains of indicated organisms

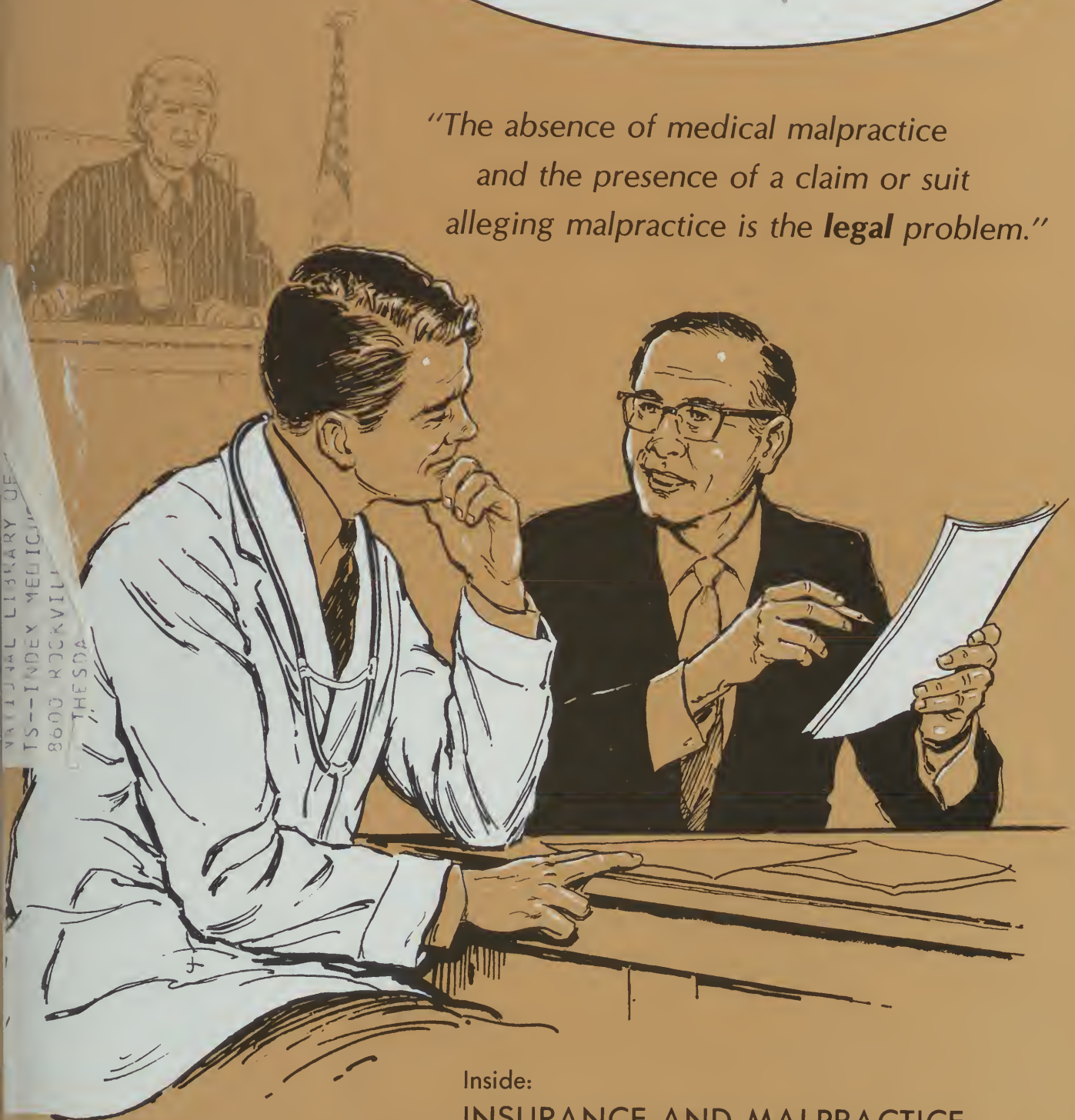
Please see previous page for summary of product information.

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April 1982 • Vol.75 • No.4

The JOURNAL of the INDIANA STATE MEDICAL ASSOCIATION

*"The absence of medical malpractice and the presence of a claim or suit alleging malpractice is the **legal** problem."*



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Inside:

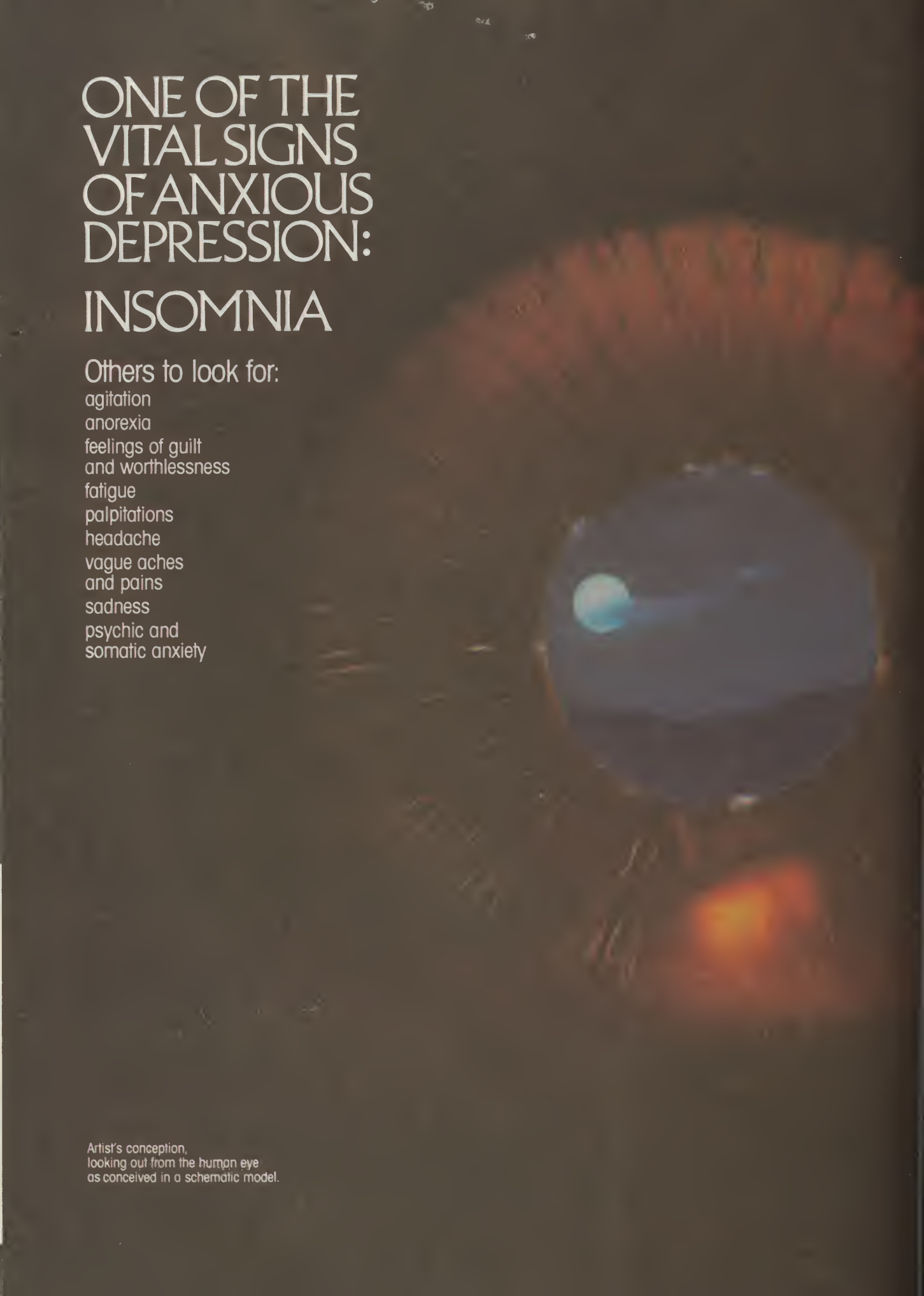
INSURANCE AND MALPRACTICE

ONE OF THE VITAL SIGNS OF ANXIOUS DEPRESSION:

INSOMNIA

Others to look for:

agitation
anorexia
feelings of guilt and worthlessness
fatigue
palpitations
headache
vague aches and pains
sadness
psychic and somatic anxiety



Artist's conception,
looking out from the human eye
as conceived in a schematic model.

ROCHE

LIMBITROL GIVEN H.S.: ONE OF THE VITAL SPECIFICS OF TREATMENT

Limbitrol brings a special—and specific—quality of relief to most anxious depressed patients. Insomnia, for example, responds with particular promptness. Other symptoms likely to respond within the first week of treatment include anorexia, agitation and psychic and somatic anxiety. And, as the depression and anxiety are alleviated, in many cases so are such related somatic symptoms as headache, palpitations, and various vague aches and pains.

Limbitrol given once daily h.s. may be the best approach

Many patients respond readily to a single bedtime dose of Limbitrol, a convenient schedule that may enhance compliance and helps relieve the insomnia associated with anxious depression. Limbitrol also offers a choice of other regimens: t.i.d., or a divided dose with the larger portion h.s. In all cases, caution patients about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as driving or operating machinery.

in moderate depression and anxiety

Limbitrol® IV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Specific therapy with h.s. dosage convenience

Please see summary of complete product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.
How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.

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ROCHE PRODUCTS INC.
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WHAT'S NEW?

TRANSDERMAL nitroglycerin ointment is now available from Marion Laboratories in convenient unit-dose packaging for hospital and nursing home dispensing. The new package form of Nitro-Bid® ointment is a 1-gram foil pouch containing the equivalent of 1 inch of ointment squeezed from the conventional tube. Nitro-Bid will also be available in 20-gram and 60-gram Paks and in individual tubes.

THE 3M COMPANY announces a new 16mm movie that illustrates basic methods for applying fiberglass casts. It is an eight-minute sound/color film called "General Casting Techniques" and is available for free showings through the 3M Orthopedic Products Department.

HEWLETT PACKARD announces a new patient data management system for critical care situations. It collects, organizes and calculates the enormous amount of data generated in medical, surgical, coronary, burn and neonatal intensive-care units. Designated by HP 78707A the system keeps track of patient responses to therapeutic intervention and allows staff attention to be focused on the dynamic needs of individual patients.

ADRIA LABORATORIES has received FDA approval to market a new product, TYMTRAN® (ceruletide diethylamine) Injection in the United States and Canada. Tymtran contracts the gallbladder, facilitates the diagnostic visualization of gall stones, and is useful in the radiological examination of the small bowel.

GAYMAR INDUSTRIES has a new hyper/hypothermia blanket, the Mul-T-Blanket, which has a soft fabric side, ending the need for an interposed sheet. This increases effective heat transfer to the patient by 22%. The Gaymar exclusive "button" design spreads temperature evenly throughout the blanket without tubular ridges, which may be uncomfortable.

SERONO LABORATORIES has received FDA approval to market Pergonal®, which until now has been used exclusively in treatment of female infertility, as a therapy for male infertility. It is the first FDA approval of a drug to improve the sperm-producing function of the man.

CONTINUED ON PAGE 290

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

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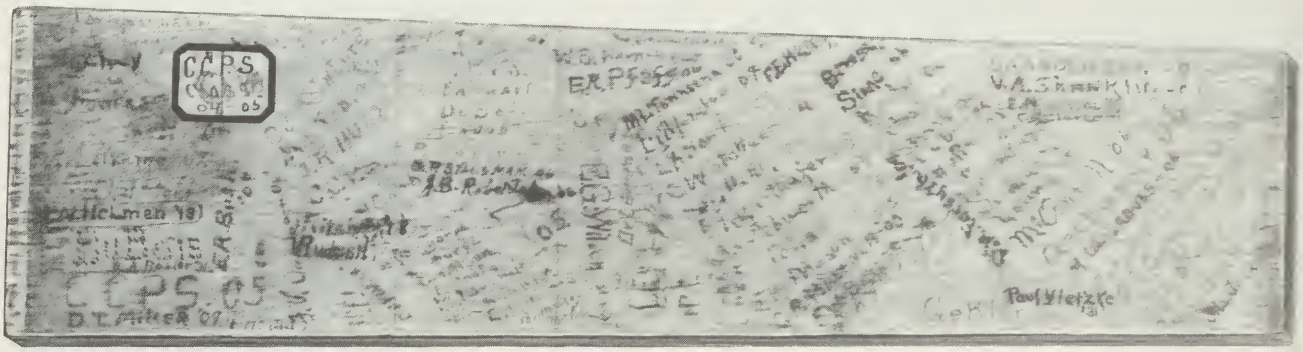


ABOUT THE COVER

The physician's philosophy and attitude toward insurance and malpractice were addressed recently by a liability insurance claims administrator who says medical malpractice is a medical problem, not a legal problem. See "Insurance and Malpractice," page 244.—COVER BY FRED KINGHORN

MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis



Between 1896 and 1955 medical students of Indiana University School of Medicine and its predecessor schools (The Central College of Physicians and Surgeons, among others) attended classes in the amphitheater of the Old Pathology Building.

Until construction of the West Tenth Street Veterans' Hospital and the LaRue D. Carter Hospital on the I.U.M.C. campus, there was insufficient clinical material at the medical center alone to adequately teach neurology and psychiatry. This deficiency was easily compensated by the patient population at Central State Hospital, which numbered up to several thousand persons during this period.

Examples of most of the chronic neurologic and psychiatric problems could be found, and especially numerous were those related to CNS syphilis. These patients and examples of the pathology they represented were presented to thousands of medical students over the years in the amphitheater of the Old Pathology Building. The photograph shows a memento of these students.

This is a piece of oak 13¾ inches long, 3½ inches wide at one end, narrowing to 3 inches at the other end. It is ⅜ inch thick at the wide end, tapering to ¼ inch at the narrow end.

The piece is shaped so as to fit into a similarly-shaped cut on the underside of a small desk. There are two such desks, located one behind the other, at one side of the amphitheater. Of the approximately 100 chairs in the amphitheater, only two are accessible to desks.

Each desk originally had two such removable pieces as described. One piece is now missing from each desk. The remaining piece in one desk is wedged firmly in place by time and expansion. Only the piece shown here from the second desk can be removed and replaced with ease.

One can only guess at the intended function of these pieces. The obvious use, as shown in the illustrated example, was to record graffito style the student's name and in some instances the year of his graduation. The board contains about 75 names, roughly half of which are legible. The earliest recognizable date is 1905, and the most recent, 1931.

Following are the legible names:

Stower
M. W. Helman '13
Ritchey '18
Rudesil '18
D. T. Miller '09
W. S. Blue '06
T. Cowles '06
Colvin V. Dunbar '06
H. W. Graves '06
Aschaur '06
Gekler
Paul Vletzke '31
Thorpe
L. A. Anderson
T. Earhart
P. Coble
B. D. Ravdin '16
Seamon
DuBois '05
H. A. Bosler '31
Thomas
C. J. McIntyre
J. D. Hendricks
McConnel '06
Young
Hutto
Ratcliff '06
Sims '06
George Wood '08
E. K. Pfaff '06
E. R. Bush
V. A. Shank
J. B. Roberts '06
E. A. Hershey
J. M. Whitehead
J. L. Jackson

The year 1906 is unusually well represented. The class of 1918 provides the most familiar name, that of Dr. Ritchey, who was the first recipient of the Marcus Ravdin Medal for Scholarship, given annually to the best I.U.S.M. senior. Dr. Marcus Ravdin (1866-1950) was an Evansville physician, a specialist in ENT.

The list above reveals the name of B. D. Ravdin '16, which aroused my curiosity—any relationship to Marcus? Dr. Benjamin Ravdin (1892-1966), also from Evansville, also an ENT specialist, served many roles for the ISMA during the 1920s and 1930s. None of the biographical material found on these two physicians mentions a relationship.

The name P. Coble should sound familiar to Indianapolis physicians. The physicians' and dentists' American Legion post is designated as the Paul Coble Post No. 26. Dr. Coble (1883-1919), an assistant professor at the I.U. School of Medicine, was a member of Base Hospital No. 80 in France.

The last name on the list, J. L. Jackson, warms my heart. Dr. Jackson was our family doctor. He attended my birth and then, many years later when I was an intern, unselfishly passed along his accumulation of experience. Dr. Jackson was a 1914 graduate. He had a generous measure of all the good qualities implied by the term, "family doctor."

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Coverage through Pennsylvania Casualty Company is now being offered to physicians in Indiana for both Claims-Made and Occurrence policies. By way of introduction, Pennsylvania Casualty Company is a member of the PHICO Group—the largest insurance carrier for health care providers in Pennsylvania. PHICO was formed by the health care providers in that State as a solution to the medical malpractice crisis of the 1970's.

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EDITORIALS

MAC, Medicaid and Pharmacy

It's been eight years now since the Maximum Allowable Cost Program (MAC) was tacked on to Medicaid beneficiaries.

At its inception the program had few friends other than the government and the American Pharmaceutical Association. All other pharmaceutical associations, most of the practicing pharmacists and all or almost all physicians were skeptical. All were in favor of providing drugs for patients at an economical cost but worried considerably about buying the drugs from the lowest bidder.

It is obvious that almost any article or product can be made for less than the average price in the market place. However, as various makers strive for lower and lower prices, there comes a situation in which the quality suffers. In the case of drugs, poor quality is difficult to determine. The FDA does what it can with what resources it has to monitor manufacturing standards but is able to cover only a small portion of the pharmaceuticals that are produced by hundreds of drug houses.

Since most drug products do not present any indication of quality or lack of safety by naked eye inspection, and since pharmacists do not have the wherefore to determine quality, most drugs are dispensed or are chosen for dispensing by the pharmacists' knowledge of brand names and reliable manufacturers.

The natural tendency of a pharmacist is to dispense that which he is surest of—a preparation with which he is familiar, and one, it is now evident, which costs more than the drugs that carry the flag of the MAC.

"Action In Pharmacy" newsletter reports that a survey conducted in Ohio revealed that many pharmacies do not stock drugs which are at or below MAC ceiling. This, of course, places the pharmacist in the squeeze. Many, in their insistence that patients receive reliable drugs, are suffering low reimbursement levels. Others, with a high proportion of Medicaid prescriptions, have been forced to forego the Medicaid business.

Another investigation as reported in "Action In Pharmacy" shows that in actuality pharmacists are either subsidizing the government programs or are passing the loss on to their private-pay patients. This corresponds to the situation in which hospitals must charge private-pay patients more in order to balance the hospital loss incurred because Medicare will not pay the full bill for Medicare patients.

An inventory of 100 pharmacies in each of five states determined that a majority of the pharmacies did not carry any of the 13 MAC drugs at MAC or lower levels.

Economic tribulations are being reported now in the wholesale drug business. Along with the distinct possibility that patients are suffering from the adverse effects of drugs with insufficient bioavailability, there has now developed an economic crisis that promises to become worse and worse and for which the only remedy is a reversal of the bureaucratic system called MAC.

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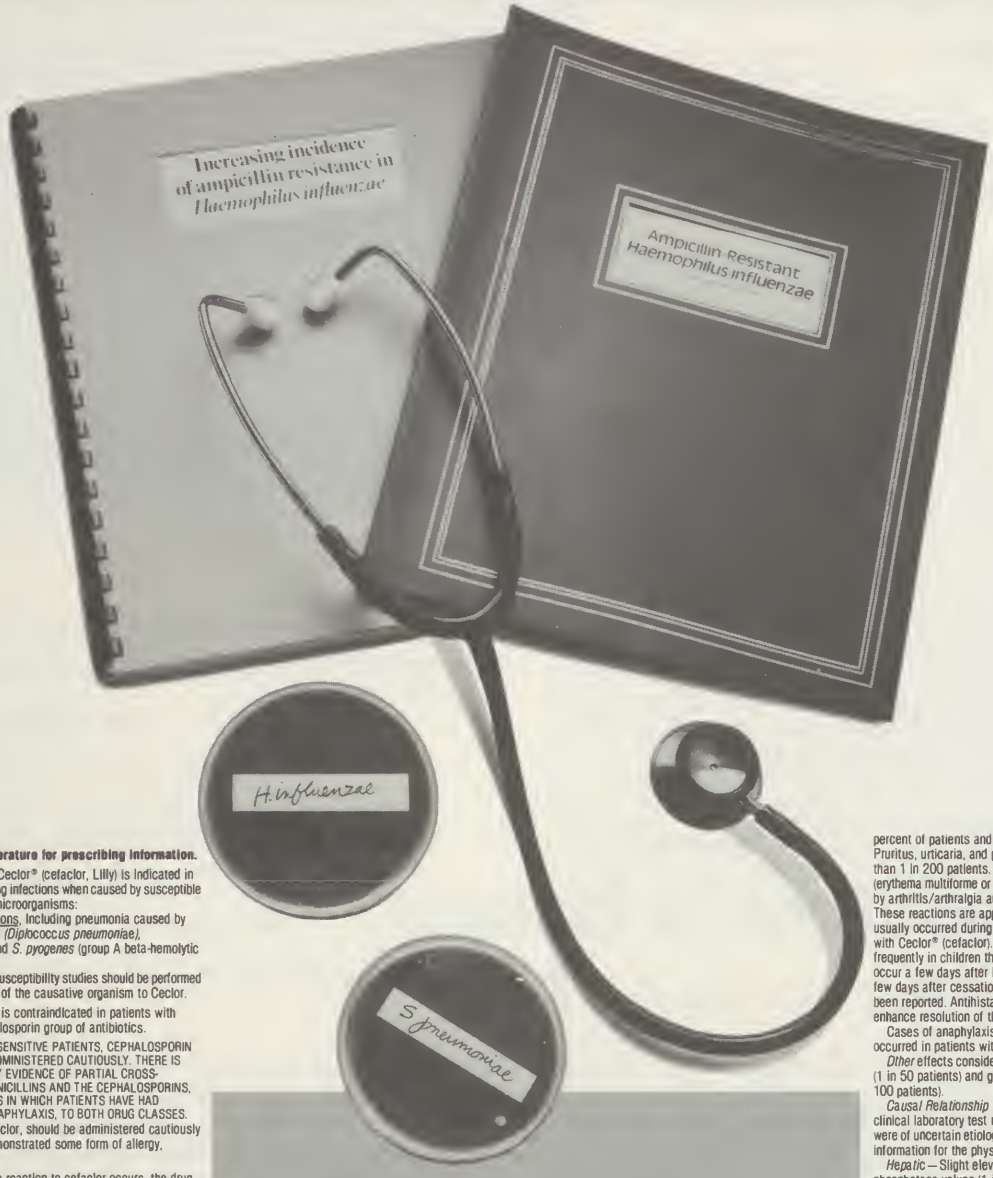
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3—Richard G. Huber, Bedford	Oct. 1982
4—Mark M. Bevers, Seymour	Oct. 1983
5—Paul Siebenmorgen, Terre Haute (Chairman)	Oct. 1984
6—Davis W. Ellis, Rushville	Oct. 1982
7—Donald C. McCallum, Indianapolis	Oct. 1983
7—H. Marshall Trusler, Indianapolis	Oct. 1984
8—Richard L. Reedy, Yorktown	Oct. 1984
9—Max N. Hoffman, Covington	Oct. 1982
10—Charles D. Egnatz, Shererville	Oct. 1983
11—Herbert C. Khalouf, Marion	Oct. 1984
12—Michael O. Mellinger, LaGrange	Oct. 1982
13—Donald S. Chamberlain, South Bend	Oct. 1983

ALTERNATES

District	Term Expires
1—E. DeVerre Gourieux, Evansville	Oct. 1982
2—Paul J. Wenzler, Bloomington	Oct. 1983
3—Eli Hallal, New Albany	Oct. 1983
4—William E. Cooper, Columbus	Oct. 1982
5—Benny Ko, Terre Haute	Oct. 1982
6—Clarence G. Clarkson, Richmond	Oct. 1983
7—John D. MacDougall, Beech Grove	Oct. 1982
7—Garry Bolinger, Indianapolis	Oct. 1982
8—William C. VanNess II, Alexandria	Oct. 1982
9—Lowell R. Stephens, Covington	Oct. 1983
10—Walfred A. Nelson, Gary	Oct. 1982
11—Edward L. Langston, Flora	Oct. 1983
12—Thomas A. Felger, Fort Wayne	Oct. 1983
13—John W. Luce, Michigan City	Oct. 1982

An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor
Pulvules®, 250 and 500 mg

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coomb testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

As with other broad-spectrum antibiotics, colitis, including rare instances of pseudomembranous colitis, has been reported in conjunction with therapy with Ceclor.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor® (cefaclor). Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [100261R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., *8*:91, 1975.
2. Antimicrob. Agents Chemother., *11*:470, 1977.
3. Antimicrob. Agents Chemother., *13*:584, 1978.
4. Antimicrob. Agents Chemother., *12*:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II:880. Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., *13*:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

Eli Lilly Industries, Inc.
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LETTERS

Time Will Tell

Back in 1979 I wrote a review for this journal about a book called *Women Can Wait* by Terri Schultz in which women intending to postpone their first pregnancy till between 30 and 40 years of age were reassured.

With the lapse of time, the wisdom of this will be better judged by the results. There is already one source of comment upon the question, appearing in the newsletter for January 1982 of the American College of Obstetrics and Gynecology—namely, the tabulation appearing at right.

The chart shows that the cesarean section rate climbs steadily from 20 to 39. For our North Central area, the rate is (per 100 deliveries) 10.3 at age 20 up to 20.7 at age 35-39. For the entire country, the same rates are 13.7 at age 20 to 20.4 at 35-39. The Northeast area has the highest rate, reaching 24.1 at 35-39.

This should lead to a bit more caution in making statements as to the freedom with which decisions are made by the individual woman. In spite of the progress made by pediatricians in perinatal care, I still feel that normal delivery is to be preferred.

U.S. CESAREAN SECTION RATE RISES HIGHER IN 1979

Cesarean section rates for non-Federal short-stay hospitals in the United States and each region by age of mother

Area	All ages	Age of mother (years) 20	20-24	25-29	30-34	35-39	40 and over
United States	16.4	13.7	15.6	16.4	19.5	20.4	23.0
Northeast	18.1	13.7	17.3	17.1	22.6	24.1	—
North Central	14.3	10.3	13.8	14.7	15.5	20.7	—
South	17.7	16.0	16.7	18.4	21.1	19.5	—
West	15.5	13.6	14.5	15.0	18.5	16.7	—

Dashes indicate figures did not meet standards of reliability or precision.
NOTE: Rates are number of cesarean sections per 100 deliveries.

Reprinted by permission from the January 1982 issue of The American College of Obstetricians and Gynecologists Newsletter.

In other words, deliberate postponement of the first child should be done with more than casual circumspection.

A. W. Cavins, M.D.
Terre Haute

Substitution in Indiana

Guest Editorial

INDIANA BEING the only state without a substitution law up to the present time is a matter of curiosity and a subject for trivia quizzes.

An article in the December 1981 issue of *American Druggist* calls attention to this fact and to the arguments that have been advanced resulting in substitution laws making little progress.

We would like to side with Jim Gorrell, Lilly's director of Government Programs, who says, "Maybe we are the only state that's correct."

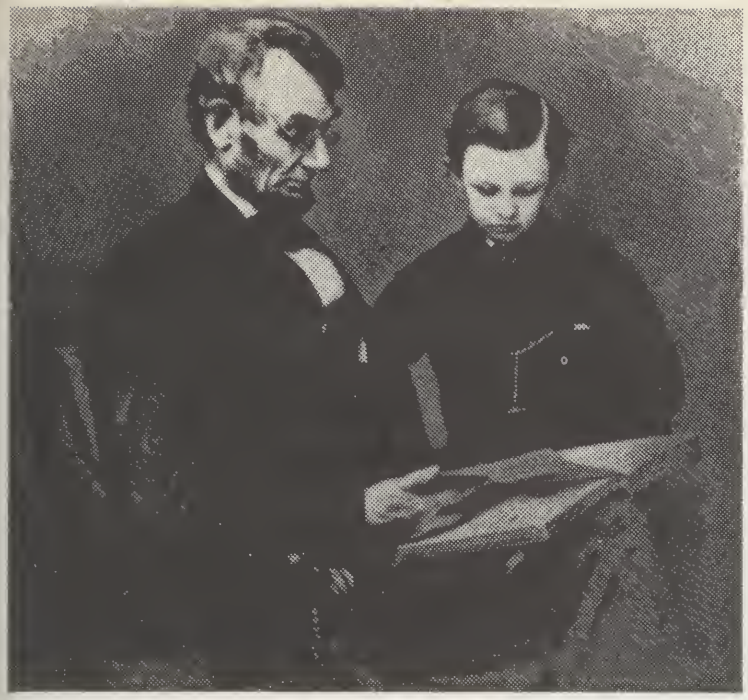
It is interesting to note that in the same article the secretary of the Board of Pharmacy indicates an increasing number of doctors are prescribing generically and the pharmacists are taking an active interest in suggesting substitution where it is appropriate.

Our comment here is that's the way it ought to be. The idea that we have to have laws for substitution, and in some cases making it mandatory, seems to us to be a reflection on the pharmacist's professional abilities. When he can exercise his professional judgment, seek counsel with patients and physicians and establish substitution where it's appropriate, we submit this is the firm foundation—patient, physician and pharmacist being in agreement.

Another issue that is pointed out in this article, which certainly bears repetition, is that substitution doesn't save the kind of money that it's reported to save and does so at the expense of the patient's therapy.

Anti-substitution laws were passed for a good purpose and we see the specter of the reasons for their passage in the early 1950s raising its head again in the early 1980s. It was a good law and served the anti-substitution law's purpose. The alert pharmacist, who exercises his professional prerogatives by consulting with patients and physicians with regard to their drug therapy, can solve the substitution problem without sacrificing the patient's interest in good health care.

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**Meeting of Am Soc Colon/Rectal Surgeons, May 1980.*
***Based on total prescriptions filled for hemorrhoidal preparations during the first three quarters of 1981. The National Prescription Audit, IMS America Ltd, Sept 1981.*
†1981 data from leading marketing research organization.

PD-85-JA-0867-P-1 (2-82)

ANUSOL-HC® Suppositories/ ANUSOL-HC® Cream

Before prescribing, please see full prescribing information. A Brief Summary follows:

Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in external and internal hemorrhoids, proctitis, papillitis, cryptitis, and fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

CONTRAINDICATIONS

Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

WARNINGS

The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

PRECAUTIONS

General

Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy

See "WARNINGS"

Pediatric Use

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

DOSAGE AND ADMINISTRATION

Anusol-HC Suppositories—Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

Store between 59°-86°F (15°-30°C)

1089G010

Now or Never

Guest Editorial

S. LON CONNER
Executive Director
Medical Association, State of Alabama

THE END OF AN OLD YEAR and the beginning of a new is always a time for reflection on the past and contemplation of the future. Spare me if I indulge in that age-old weakness.

Certainly the most momentous development during 1981 was the attempt to reorder the nation's economy. In trying to reverse the tides of almost half a century of drift toward the welfare state, President Reagan had the instincts and the courage of a riverboat gambler, to use the descriptive phrase of one of his lieutenants, Senator Howard Baker.

No one, least of all the nation's economists, are exactly certain how this new economics will work out in either the near term or the long term. There is sincere doubt expressed by many in his own party, and certainly by Wall Street, that such a sudden cutoff of the federal dole may have untoward effects on an economy built of ever-increasing federal spending.

Surely the persistence of high interest rates was not a failing mark. As the President said, you could hardly expect the results of decades of federal excess to be corrected in weeks. Most conservatives who expressed apprehensions did so because they feared that the experiment would not be carried far enough, that the deficit brought on in part by the President's tax cut, but mainly from the spending excesses of recent years, would not be reduced to a size small enough to achieve the objective.

Perhaps in 1982 there will be a clearer view of the lasting effects of the President's attempt to return the national economy to something closer to sanity.

Virtually no one has escaped the cruelest tax of them all, inflation. From the modest pensioner to the very rich, all have paid a price. The little man spends a far higher percentage of his income on the necessities of life—all skyrocketing upward in price—than the man whose principal worry is the high cost of luxury yachts.

Still, it is a gamble. Keynesian economics has had such a hold on Washington and the nation for so long the President's cures could send the country into shock, as Senator Baker implied and others privately fear. No one really knows. But the turn-around attempt had to be made. Voters seemed to have said that in the last general election.

At the very least, the new sense of frugality that has been generated by the attempts to halt the treasury drain is of great value in itself. Too many years of easy-come-easy-go living have infected Americans at all levels of income and interest. The belief that there is no tomorrow, so alien to a young country that had always planned for the future, seems to have been dealt a timely blow.

None of which is to say that physicians will be spared some of the effects of the new austerity. For one thing, the government supply of money into the health care pipeline has been squeezed and will likely be restricted even more.

But doctors should rise above the wail heard abroad in the land as each interest group's ox is gored by cutbacks. The best austerity program, like the best tax, is always the one somebody else had to endure. This is only human nature.

But 1982 is a congressional election year. It will be more than surprising if the old practitioners of tax & spend are not doing business at the same old stand, trying to exploit the many individual grievances that may exist at that time, resulting from a bold attempt to return the nation to fiscal sanity.

It is incumbent on all Americans, I believe, to ignore the siren song of those who would take us back to the bad old days that got us into this fix. I hope that as 1982 moves along Americans will bear whatever ills they have and tell Washington to keep trying to refloat the ship of state. The alternative, it appears, is ruin.

Reprinted by permission from the December 1981 issue of the Journal of the Medical Association of the State of Alabama.

DESCRIPTION: Methyltestosterone is t7β-Hydroxy-t7-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, t0 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, t0 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy,* Sept. t976. **SUPPLIED:** 5, t0, 25 mg. in bottles of 60, 250. Rx only.

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Thoughts About Retiring

Guest Editorial

L. A. ARATA, M.D.
Shelbyville

A FEW MONTHS AGO, my thoughts were directed to the subject of retirement by my daughter's "Pop, what are your plans about retirement?"

Quite frankly, I had no "plans" on the subject. Over the years, the term had entered my conscious thoughts, but was promptly "relegated to the back burner" by more pressing immediate concerns, and probably by the unconscious denial of my own aging. Not being able to sidestep the issue much longer, I began to try organize my thoughts—and feelings.

Like all the doctors I know, I, and we, worked our heads off for long years to become identified as doctors. It is an identity that I have had for so long and have worn so proudly that I hate the thought of giving it up. Without an identity, I fear becoming a *nobody*. I do not seek to be nor want to be the best golfer on the course, the best fisherman on the lake, or the best shuffle board player in the apartment complex. None of these identities strike me as being nearly so satisfying as being "Doc."

With thoughts about retirement come the thoughts about finances during that period. Not having lost two fortunes in tax shelters, and only part of a small one in the stock market (how lucky can you get!), and always planning on using the principal rather than leaving it to someone else who might be harmed instead of helped by legacy, that aspect of retiring can be managed. There are some other financial problems to be considered.

If one retires, he draws several thousand dollars per year in Social Security checks; if one does not retire, he pays several thousand dollars per year in Social Security taxes. If one continues to practice, he pays many more thousands of dollars for office expenses and space, and for malpractice insurance premiums. Add together the uncollected Social Security benefits, the Social Security tax paid, the professional and malpractice insurance expenses and one arrives at a figure that could easily exceed $25,000 that must be earned and paid annually before one reaps the first dollar for himself. Continuing a limited practice after reaching Social Security age is indeed a very expensive activity for doctors.

Many years ago I read a definition of a "free man" as one who did what he wanted to do to make a living, and what he had to do in his spare time; a "slave" did what he had to do to make a living and what he wanted to do in his spare time. I do not know what wise man expressed these thoughts, but by his definition, I have been a "free man." I practice because I want to do so; I want to do so because it preserves my identity of "doctor."

At this minute, I intend to keep my identity—even if it costs me money to do so. I reserve the right to change such decision if or when future physical, mental, or financial circumstances affecting my spouse and me cause me (us) to change my mind. I hope these thoughts and ideas might be helpful or interesting to other doctors, because we all will eventually be faced with retirement decisions.

AMA Okays Use of Finance Charges

An AMA resolution gives physicians the option of attaching finance charges to overdue patient accounts, so long as patients are notified of the practice in advance and exceptions are made in cases of hardship.

The resolution was adopted at the AMA interim meeting in Las Vegas in December. The reasons cited for passing the resolutions were high interest rates and cash-flow problems. Physicians who decide to add finance charges should be careful to comply with state and federal truth-in-lending laws.

Indiana law presently requires that interest or carrying charges not exceed 1½% per month or 18% per year. (Legislation introduced in the 1982 General Assembly raised the limits to 1¾% per month or 21% per year, effective Sept. 1.)

Indiana law also requires that a "Form I—Notice of Intent" be filed with the Indiana Department of Financial Institutions. The forms may be obtained from that department by calling 317-232-3955.

Questions should be referred to the Indiana Department of Financial Institutions or to ISMA legal counsel.



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A Lift for Sagging Spirits

JOHN W. WALLS
President
Indiana Chamber of Commerce

The Voice of Business

IN THIS FRIGID SEASON our sagging spirits could use a lift; something to take our minds off the twin specters of brutal weather and a bruised economy. Instead of the bad news blues I offer a refresher—a good news cruise through some familiar waters: Indiana's Sea of Assets.

The Hoosier state is suffering high unemployment, but 90% of our work force still have jobs.

Remember how bad the 1981 corn crop was supposed to be, with the spring floods and bad weather? Well, Purdue University reports that the final estimate shows a total of 654 million bushels. This is 8% above 1980 and the third largest crop in state history.

Indiana's recreational vehicle (RV) industry now employs 1,300 more workers than at this time a year ago. (Layoffs hit the front page and get prime coverage on television. Recalls are noted on the business page and frequently bypassed on TV.)

Within the past two months, if you were paying attention, you would have noted that:

- Chrysler Corp's Indianapolis foundry recalled 268 workers.
- A computer forms company announced a new, $10 million plant to be located at Scottsburg.
- Union Carbide Corp. is announcing two expansions in Indiana.
- Michigan City just landed two industrial plants.
- J & L Steel has brought back 600 of its laid-off workers.
- Whirlpool announced a $20 million expansion and modernization at its Evansville plant.
- The small towns of Marengo and French Lick each landed new plants for a total of 60 additional jobs in that area.
- The Bun candy bar is saved. Wayne Candies in Fort Wayne was going to close its doors, but a West German company decided to buy them out and "save the Bun."
- Almost the same can be said of the South Bend Toy Co., which was saved from extinction through purchase by two local businessmen.

The Indiana State Chamber's director of special projects, Max Moser, has tallied over one billion dollars worth of announced commercial, industrial and other business development projects in Indiana since last September.

Despite what is said and printed forebodingly about the Sunbelt threat to prosperity in the Midwest and Northeast, Indiana is still in the middle of America's industrial heartland.

Don't forget:

- 45% of all of America's autos are assembled in Indiana and its contiguous states.
- 56% of America's trucks are assembled likewise.
- 51% of America's raw steel is thus produced. (Indiana alone pours twice as much raw steel as India; three times more than Sweden; and more than the combined total of Central and South America.)

We are the third largest corn-growing state, the third largest soybean state, and the third largest hog-producing state. Indiana's government is one that understands the problems of business and industry, sees the economic importance to all Hoosiers of cooperation with the private sector, and holds steadfastly to the ideals of low taxation and pay-as-you-go operation.

All is not peaches and cream in Indiana, especially for the jobless and for businesses overwhelmed by the current downturn. But Indiana remains a good place in which to live, to raise children, and to make a business profit.

This article was prepared for publication in early February 1982.

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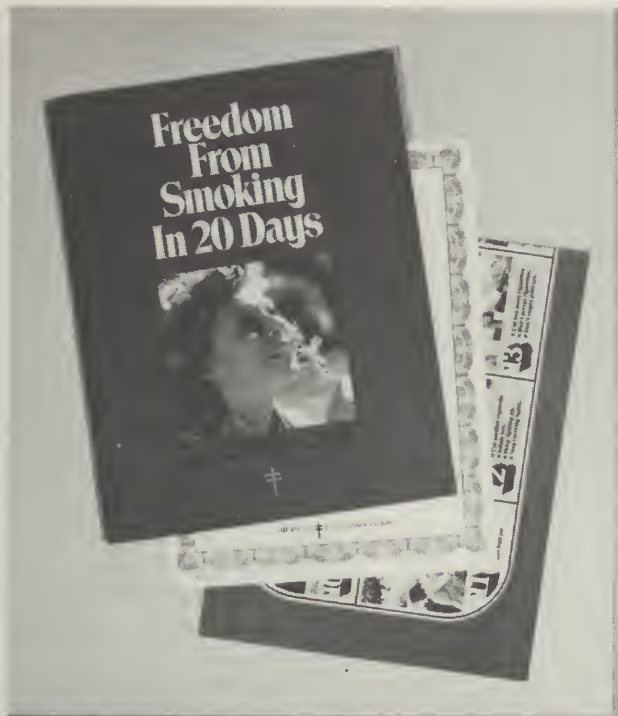
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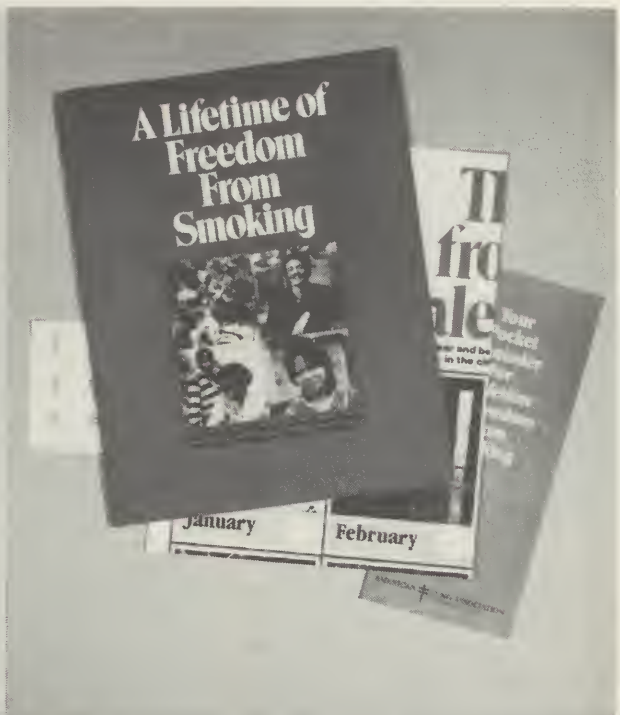
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Insurance and Malpractice: A Look at the Physician's Attitude, Philosophy



BERNARD H. GENEST
Lawrenceville, N.J.

THE MEDICAL Inter-Insurance Exchange of New Jersey began to underwrite professional liability insurance on an **occurrence** basis in February 1977.

It was formed as a reciprocal insurance company, which is to say that each policy year, and its policyholders, must stand on its own. If profits are incurred, they will be returned to the policyholders of the year in which the profit was made. If a loss occurred, the deficit is made up from the company's surplus.

Currently, the Exchange insures 6,000 physicians of a possible insurable population of 9,000. The competition is a state legislated joint underwriting association.

If you were a Class I physician (family practitioner or general practitioner) insured with us in 1977, you would be paying 23.5% **less** for your premium in 1982 than you did in 1977. If you were a general surgeon insured with us in 1977, you would be paying 8.5% less than you paid in 1977. If you were a Class III (family practitioner, general practitioner major surgery), you would be paying 6.9% less than you paid in 1977. The **worst** case would be an obstetrician insured with us in 1977. He or she would pay 3.8% **more** than in 1977. That is about 7/10 of 1% per year increase!

The reason for these results is that the proposed 16.1% rate increase for 1982 policy year will be more than offset by prior premium reductions and the first declared dividend of $5 million—a 20% return of 1977 premium to 1977 policyholders.

Why are we enjoying these results in New Jersey, and why do we expect a bright outlook for the future?

In the first place, the Medical Inter-Insurance Exchange of New Jersey adopted the rates of the prior carrier during its first year of operation, and it turned out that they were significantly inflated.

In the second place, the Medical Inter-Insurance Exchange required a heavy capitalization with a goal of $1 of surplus to $2 of written premium so that today it enjoys a very substantial cushion in excess of $25 million in surplus.

Also, investment income has been adequate, although nothing to rave about.

The Medical Inter-Insurance Exchange decided not to waste money on commissions for agents or brokers and, therefore, became a direct writer of insurance.

They also decided not to farm out their claims administration to independent adjusters or to other independent profit motivated agencies that would "service" their insurance needs. They developed their own in-house organization. These last two steps alone saved 10¢ to 15¢ on each premium dollar collected. The point here is that the professional liability premium dollar is too scarce to share with other non-essential profit motivated institutions.

All of these decisions were initially important, but they are not the cause of our optimism for the future. That optimism rests with some fundamental adjustments in the **physician's** philosophy and attitude toward insurance and malpractice.

- Insurance is **NOT** a crusade. It is a business!
- The **purpose** of the business of insurance is to **pay losses** by spreading the risk.
- The contractual relationship includes two promises: to pay damages; and to defend. We do **not** interpret the contract to mean that we are to spend millions building contrived defenses for indefensible cases. We interpret the contract to mean that we have as much of an obligation to our insureds to pay damages — when due — as we do to defend cases. These obligations are co-equal.

This presentation was delivered during a meeting of the Forum on Medical Affairs in Las Vegas Dec. 6, 1981.

Mr. Genest is vice-president, Claims Administration, Medical Inter-Insurance Exchange of New Jersey, Two Princess Road, Lawrenceville, N.J. 08648.

• Medical malpractice is a **medical problem.** It is **not** a legal problem.

• The absence of medical malpractice and the presence of a claim or suit alleging malpractice is the **legal** problem.

• If we accept these last two items — and we do — then there must be a division of labor in the administration of claims. a) The Claims Department, in cooperation with its insureds through the mechanism of Peer Review, has the duty to identify, isolate and immediately dispose of the medical problems, the "misadventures", before they are allowed to enter into costly and protracted litigation; and b) Defense counsel is reserved under **careful** supervision for those cases that represent **legal** problems.

• In order to allow this division of labor to occur, you **must** staff your Claim Department heavily and with qualified people. We have set a caseload of **50** per claims person. Without this staff, by default, you lose control of your claims to defense counsel. May I remind you that defense counsel is **paid by the hour.** Your backlog of cases becomes uncontrollable and you don't know if you are coming or going. In our case, we have actually **closed more** claims than are open! (Of 3,006 reported, we have closed 1,527.)

In order that defense counsel would not attempt to subvert our system but would give it their full cooperation, we were forced to abandon most of the old-line "blue blood" firms for younger, more **progressive,** and more **aggressive** attorneys. This meant that we actually had to encourage the formation of new law firms.

It may interest you to know that defense counsel takes as much of your premium dollar for his fee as plaintiffs' attorneys receive for their much maligned contingency fees. The only difference is that while defense counsel is virtually guaranteed his money, plaintiff counsel must take a risk. They both play golf together.

• We decided that a good part of the adversary system is something of a contrived battle arranged for the economic advantage of the American Bar Association. Therefore, we decided to try and **defuse** the situation as best we could. We literally sat down with ATLA (American Trial Lawyer's Association) and said to them: Before we level our guns at each other, let's find out if we have anything to argue about — this agreement was committed to writing. So far, we have agreed on at least one-third of our cases that, indeed, we don't have anything to argue about.

The effect has been a decrease in our defense legal fees to 2¢ on the dollar of indemnity paid. That is, on the $26,469,759 paid in indemnity through Nov. 30, 1981, our legal fees and associated Allocated Loss Adjustment Expenses came to only $668,491. The last national figures for cases closed in 1978 published by the NAIC (National Association of Insurance Commissioners) was 18¢ on the dollar. Of course, that would be much higher today.

• We knew that the passage of time has a very significant and adverse effect on the settlement value of a case. Therefore, we have managed to settle our cases closed with indemnity paid on the average of 9.63 months from the date reported! (The 1978 NAIC study indicated 27 months as the national average.) The desired goal of actually maintaining or **decreasing** the average paid indemnity through the mechanism of early settlement seems to be working. Although another two years is needed to **prove** the theory, we can say that in New Jersey (Medical Inter-Insurance Exchange), there is no evidence of an increase in severity of loss.

Incidentally, the investment income gained by holding onto your reserves does **not** exceed the rate of inflation on malpractice settlements. So if you run your company on the investment income theory, you are playing a fool's game!

• The battle for the premium dollar does **not** take place at trial! In spite of the publicity awarded large verdicts, the verdict dollar represents a **very** small portion of the loss dollar (in our case 3.5%). If you are letting defense counsel convince you otherwise, you are being taken for an expensive ride.

Incidentally, you do **not** get your best settlement on the court house steps, if that is what your defense counsel is telling you.

• Loss prevention, mentioned earlier in this program, was not given a high priority in New Jersey. We felt that the detailed information needed to get at the preventable causes of loss was missing. So while concentrating our efforts on **The Loss Control** program I have been describing, we concurrently developed a computer system for the collection of our loss data that would one day serve as the core of our loss prevention program. A year from now, we should be hearing about the first results of this program. What has your state done over the past five or six years to collect loss information?

What we have done, then, is to wring out the millions of dollars of waste in the insurance mechanism. It has bought us valuable time but . . . we can only wring out so many millions of dollars of waste from the system and we can only buy so much time.

All the negative forces that were at work are still at work, and are probably getting worse!

What I suggest to you, doctors, is that while you work on legislative relief and some miraculous loss prevention program, **you buy yourselves some time. Look inward!**

Preventing Physician Burn-Out, or Physician, Heal Thyself.

A Report of the Commission on Physician Impairment

LARRY M. DAVIS, M.D.
Indianapolis

LIFE AS A PHYSICIAN has many joys and stresses that most of us savor and manage, while some colleagues falter. In only the last few years, medicine has increased its awareness of its own limitations through Impaired Physician Committees at local, county, state and national levels. The stresses aren't diminishing so we are well to attend, as in this article, to our collective problem and especially to attend to ourselves.

Many things tell us we're super people. We correctly sense that we are expected by others, and expect of ourselves, to heal humans. Under a barrage of the often negative incidents of day-to-day practice, the sense of purpose continues relatively unharmed in almost all physicians (M.D.s and D.O.s) I have met. This pride in identity and sense of purpose carries us forward, unfortunately sometimes with such relentless insistence that we begin to collapse.

Often the first evidence of that collapse is our withdrawal from playfulness. Very quietly the stress shows in a reduction in the full breadth of our humanness. We take less pleasure for ourselves and give less time to ourselves, thinking that the sacrifice will turn around the sense of life gone out of full control. We begin to restrict our range of interest and intellectual curiosity in medicine and in other endeavors. Our creativity diminishes with an increased focus on getting things done, meeting the existing pressures, and catching up with the details of past or present events.

Eventually, we begin to get messages from others that regardless of our appearance as a physician, our humanness is slipping away. Our marriages grow routine and colorless, our important quiet moments with children or parents become more elusive, and we lose full touch of the warm human details of the lives of our office staff and others.

Maybe, hopefully not, some of our patients begin to heal more slowly or develop more complications. Such sustained pressures infrequently lead to symptoms that are obvious, severe, and present physicians to the county or state Impaired Physician Committee. A much larger problem than these few, identified physician casualties may well be that so many of us fall short of our best by not periodically reassessing and improving our life pattern.

Each of us must first become our own medical practitioner and heal our own ills. My experience suggests that when others have to tell us that we've lost self awareness and we're out of control, we are way past the point of "Physician, Heal Thyself." Our own humanness must have attention if we are to serve others from the position of strength and durability.

A primary goal to avoid psychological and physical burn-out may be to enhance your affection for yourself as a physician. Assess the emotional satisfaction you now derive from your practice of medicine and your attitude toward it. You need to rededicate yourself to a code of increased satisfaction through high quality and personally involved healing.

A key factor in this rededication is to augment the importance of the technology of medicine within yourself by increasing your focus on the humanness of your patients. They need from you, in addition to the excellence of your medical technology, an emotionally supportive attitude and, in return, they are capable of giving you gratitude that pleases and sustains. It is my belief that all physicians who choose to pursue their practice actively must base their energy (and freedom from burn-out) on a positive and creative attitude of healing.

It is not commonly understood that changing expectations about yourself in any area is principally and simply to decide on a new course. To grow to your full power as a physician and human you must start by taking responsibility for yourself, and deciding that you will be affirmative to medicine, rather

The author is an at large member of the ISMA Commission on Physician Impairment. He is an assistant clinical professor of psychiatry at the Indiana University School of Medicine and is certified as a sex therapist by the American Association of Sex Educators, Counselors and Therapists

than antagonistic to yourself for practicing a joyless form of your profession. Once your basic attitude about medicine has been reviewed and enhanced, you're ready to find further balance in life by attending to yourself in the areas of spirituality, sexuality, physical health and recreation, creativity, and playfulness. These pursuits will relieve the pressure that occurs from doing a high quality, much appreciated job in the practice of medicine.

Speaking of spirituality and its importance may seem unpopular or unwise, or at least unnecessary. We seem to assume that we are managing our spirituality just fine if we are going to church, or at least paying church dues and attending occasionally. In my years of formal medical training, no one ever addressed the subject of the physician and his spiritual needs, and I think they should have. Giving ourselves the time, thought and space to work on our relationship with God, one to one, will help us stay healthy

Sexuality remains a terribly important area of escape from the responsibilities, the image, the role of the physician healer. In our own personal, sexual lives, we are as unique in our distinctive sexual tastes as any of our patients. The restorative effect that a deep, sexual, letting go provides is essential in my opinion, to prevent "physician burn-out," by giving much needed pleasure for its own sake.

I recommend two things: keep your sexuality active, and keep your sexual behavior operating within a framework that allows you to enjoy without significant guilt. Take time to think about your sexual value system, and perhaps read a book such as *Male Sexuality* or *Know Yourself* (principally for males/ principally for females). Try some new sexual behaviors, or repeat some old ones and if the sexual guilt you experience from a behavior remains greater than the pleasure, I recommend you stop the behavior. More simply, if you're sexually involved with a partner, give yourself and he or she new sexual attention.

An increasing but inadequate proportion of today's physicians are actively involved in enhancing and attending to their own physical health. Our bodies work better when they are steadily exercised, properly fed, and properly rested. We teach these basics all the time but may find it difficult to do what we teach. Consulting with a physiatrist colleague, enrolling and following the directions of the staff of a health and exercise center, or even committing ourselves to an active exercise program such as regular racquetball, will help a great deal. The key is the decision that our body deserves more time and better care than it's been getting. We are learning that attending positively to our bodies ("positive addictions") by things such as jogging or gentle diets may successfully replace negative addictions, such as cigarettes, alcohol, certain sexual patterns, or even excessive work itself.

Years ago, in the military, separated from my usual circle of friends and experiencing a new community, I began to show some of the strains that lead to "burn-out." My wife Vivian insisted that I needed a new avenue of creativity; this led me into the pursuit of precious jewelry design and manufacture, which has been a sustaining drive ever since. A sense of creativity is a healthy elixir for medicine, for art forms, for business, for home and office design, for speeches and articles, or simply for the problem-solving efforts of a committee to which we belong. The forms of such creativity are endless and physicians, being high energy, resourceful, and inheritantly creative people, do amazingly creative things. I recommend that we, as physicians, take stock of our current creative enterprises, remember old pleasures in creativity, and identify within ourselves one or more creative thrusts.

Finally, I'd like you to consider the degree of your playfulness. Stress may separate us from our playfulness. If we are able to recognize the loss, we can consciously reactivate play in our lifestyle. Meeting an old friend to discuss fun times of the past, reviewing slides, movies, or photos of past play, or setting up and doing "something I always wanted to do" will help. Surprising our children, relatives, or friends by arranging tickets for an ice show, basketball game or a play will likely be fun. Finding a new hobby or reactivating an old pursuit that once was fun will also help to restore the balance between work and play. No matter how old or tired we become, we always know a special childlike, playful place inside ourselves. We can find that place and play once more, if only we will decide to do so.

Life moves by rapidly and we need to view today as our last chance to begin to attend to ourselves, and to avoid, not only "physician burn-out," but also the physician glowing ember. While reading this article, make a quick and firm decision to give yourself a special, quiet, 24-hour break as soon as it can be arranged. Invite your wife, father, mother, brother, sister, or close friend to share such special moments, or simply be alone. For some of us, the ideal self treatment may be to simply go home with special arrangements to not be disturbed. Others may find special benefit from escaping our immediate environment by retreating to a downtown hotel or traveling to a nearby resort.

Reflect on (and make some notes if needed) your life right now. Assess where you are and make some plans for improvements in love of medicine, spirituality, sexuality, physical activity, creativity, and playfulness. Physician, heal thyself.

WILLIAM M. DUGAN, JR., M.D.
Clinical Oncology Center
Methodist Hospital of Indiana, Inc.

New information from
Indiana Division
American Cancer Society, Inc.
4755 Kingsway Dr., Suite 100
Indianapolis 46205

CANCER CORNER

EVERY PHYSICIAN'S OFFICE—A CANCER DETECTION CENTER

Anti-Smoking Poster/Countercard: This anti-smoking message is based on the tremendously successful January/February 1981 cover of *Ca*, which illustrated the rising incidence of lung cancer among American women. The photograph of the woman smoking inspired a flood of letters to the editor, expressing enthusiasm and approval of the visual effectiveness of the message. In response to reader interest, the artwork has been adapted and published in two forms—as a 15″x20″ poster, No. 3739-PE; and as a 7¼″x9 ¾″ standup countercard, No. 3738-PE.



The poster/countercard shows a very attractive model with a cigarette in her hand. The copy reads simply: "Lung Cancer will soon be the #1 cancer killer of American women." The poster and countercard are suitable for use in physicians' waiting rooms, libraries and schools. The countercard may be especially useful in settings where the walls have been more formally decorated—such as in certain physicians' offices—and where a coffee table piece is more appropriate to the decor.

Public Education is also offering this poster and countercard under different guideline numbers. However, except for the guidelines, the pieces themselves are exactly the same.

Early Diagnosis of Colorectal Cancer: This newly revised Professional Education Publication (PEP) has been updated according to the 1980 ACS guidelines for the cancer-related checkup. It replaces Drs. Leffall's and Stearn's 1974 PEP on colorectal cancer.

Dr. Leffall describes the clinical manifestations of right colon, left colon, and rectal cancer. Unlike many cancers, the detection of colorectal cancer is possible before symptoms appear. Early diagnosis is made feasible with the tools already available to the clinician: digital rectal examination, proctosigmoidoscopy, colonoscopy, barium enema with air contrast studies, and stool guaiac slide testing for occult blood. Included is a discussion of these diagnostic methods and of the differential diagnosis of common conditions, among them colorectal polyps, diverticulitis, and chronic ulcerative colitis.

Dr. Stearns has contributed two close-ups that outline the techniques of the digital exam and proctosigmoidoscopy. These how-to articles are accompanied by figures illustrating the various steps of each procedure.

Illegal Use of Interferon: It has come to the attention of the American Cancer Society that certain individuals and groups in the United States and Mexico are attempting to sell substances claimed to be interferon to U.S. doctors and patients.

There is no proof that these compounds are, indeed, interferon, or if they are, which of the many types of interferon they might be. There is no proof that they are pure or free of toxic substances. Also, interferon itself is somewhat toxic and, in unskilled hands, can be life-threatening.

Interferon cannot yet be legally sold in this country since it is still experimental. It can only be used legally in U.S. patients in clinical trials. It is currently being given free to patients in such trials in 10 U.S. medical centers; it is purchased with money supplied by the American Cancer Society or the National Cancer Institute. Physicians and hospital services are supplied free by the cooperating institutions. Therefore, patients treated with interferon in legal clinical trials pay nothing.

Interferon has shown promise in American and European trials against certain cancers. However, extensive testing must be completed to determine how useful interferon is in cancer treatment. Research also is required to improve the anticancer activity of interferon while reducing its side effects; to determine which is the most effective of the many different varieties of interferon; and to establish optimal dosage, frequency of administration, time of delivery and duration of treatment.

Interferon is still an unproven drug. Attempts to profit from the sale of alleged interferons for patients use are illegal. Supplies of interferon claimed to be available from or in other countries through an international underground long associated with the promotion of laetrile are not used by established investigators in the field.

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Three Steps Toward Emergency Medical Protection...

Almost 2,000 people are joining the Medic Alert Foundation every week. Why? Because it provides the best emergency medical identification system available.

Medic Alert, founded in 1956, is a non-profit, charitable and tax-exempt Foundation that claims more than 1.5 million members. Its purpose is to serve people with hidden or special medical problems that cannot be easily seen or recognized.

Allergy to penicillin, diabetes, heart conditions and wearing contact lenses are among the most frequently named of the more than 200 common reasons for membership.

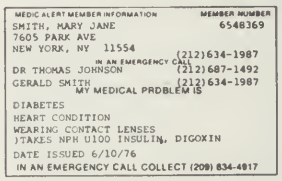
In a renewed effort to communicate with physicians and the public, an Indiana Advisory Committee for Medic Alert has been formed and its primary message is that one of every five individuals—over 40 million Americans—has a special medical condition and is therefore a candidate for Medic Alert membership.

Membership consists of three components:

1 alerting device



2 wallet card



3 emergency answering service



- The emblem, worn as a bracelet or necklace, attracts attention in a medical emergency. On it are engraved the special medical problem or problems of the wearer, the membership number and the telephone number of the Foundation's hotline.
- Medical and emergency personnel can call that number, collect, at any time to receive all the information in a member's emergency record.
- Each member annually receives a wallet card bearing the latest information the member has provided. A member's emergency record, containing personal as well as medical data, can be updated at any time.

A lifetime of protection by Medic Alert is available for a one-time basic membership fee of $15.

The Indiana State Medical Association endorsed the Medic Alert program in November 1977, thus encouraging physicians to make appropriate patients aware of the program.

The Foundation's address is P.O. Box 1009, Turlock, California 95380.

MEDIC ALERT
FOUNDATION INTERNATIONAL
TURLOCK CA 95380

THE JOURNAL offers its readers a Continuing Medical Education series of articles prepared by the faculty of the Indiana University School of Medicine. The program is coordinated and supported by a grant from the school's Division of Continuing Medical Education.

As an organization accredited for continuing medical education, the Indiana University School of Medicine certifies that this CME activity meets the criteria for one credit hour in Category 1 for the Physician's Recognition Award of the American Medical Association, provided it is used and completed as designated.

To obtain Category 1 credit for this month's article, complete the quiz on Page 275.



Tay-Sachs Carrier Detection

REBECCA S. WAPPNER, M.D.
Indianapolis

In 1881, Warren Tay, a British ophthalmologist, described a child with progressive degeneration of the nervous system and an unusual macular degeneration with a cherry-red spot. In 1887, Bernard Sachs, an American neurologist, gave the first pathologic description of the same disease. Now known as Tay-Sachs Disease (TSD), this disorder is the most common form of the sphingolipidoses and the prototype for carrier detection and prenatal diagnosis for biochemical genetic disorders.

From the Department of Pediatrics, Indiana University School of Medicine.

Correspondence: Rebecca S. Wappner, M.D., Associate Professor of Pediatrics, Indiana University School of Medicine, 1100 W. Michigan St., Indianapolis, Ind. 46223.

Clinical Manifestations

Children affected with TSD appear normal at birth and for the first three to six months. Thereafter, there is gradual degeneration of the central nervous system due to progressive intraneuronal accumulation of GM_2 ganglioside. By eight to 12 months usually enough degeneration has occurred for the disorder to be recognized clinically. The affected child usually develops the ability to crawl and sit independently, but within a few months loses this ability. There may be mild motor weakness and an increased startle response to sudden sound. The child may no longer fix his gaze or follow objects. Soon thereafter the infant ceases to react to his environment.

The hypotonia progresses with increasing abnormal upper motor neuron findings. There is little spontaneous activity. Because of the gradual loss of the ability to handle secretions and to swallow, there is a high risk for aspiration. Tonic-clonic seizures usually occur and eventually become refractory to anti-convulsant therapy. In most children, the diagnosis is established by 9 to 12 months of age.

The patients become blind and totally dependent by 18 months of age and require tube feedings by 30 months of age. Death usually occurs between three and five years from bronchopneumonia or central nervous system involvement. At present, only symptomatic and supportive therapy is available.

Genetics

The majority of affected infants are of Ashkenazi European Jewish ancestry, mainly from the northeastern provinces of Poland, Western Russia, and the neighboring Baltic Sea areas. The reason for the high incidence of carriers of the trait among the Ashkenazi Jews is unclear. Genetic explanations such as selective advantage for the carrier, population founder effect and genetic drift have been considered as contributing factors. The carrier frequency is 1 in 29 in persons of Ashkenazi heritage in the United States. The incidence of carriers in others in the United States is estimated to be 1 in 300.

TSD is inherited as an autosomal recessive trait. The parents of an affected child have a 25% risk of an affected child with each pregnancy. Unaffected siblings of the child with TSD have a 2-of-3, or 67% chance to be a carrier. Siblings of the parents (aunts and uncles) have a 50% chance to be a carrier.

Biochemistry

TSD is associated with deficient activity of the A isoenzyme of β-hexosaminidase (Hex-A). This lysosomal enzyme, an acid hydrolase, is responsible for catabolism of GM_2 ganglioside. Deficient activity of Hex-A results in the intralysosomal storage of partially degraded ganglioside, which leads to the neuronal degeneration and clinical manifestations seen in the affected infants.

The enzymatic defect was first described in 1968, and subsequent research has led to a detailed understanding of the biochemical basis for the disorder. β-Hexosaminidase (Hex) has multiple isoenzymes. The two major isoenzymes are A (Hex-A) and B (Hex-B), which account for nearly all of the measurable Hex in clinical samples.

The enzymes are coded by two different genes, on different chromosomes, which code for two different subunits, α and β. The α subunit gene locus is on chromosome 15 and the β subunit gene locus is on chromosome 5. Studies suggest that the human enzymes are probably composed of four or six subunits. Hex-B is composed of only β subunits, while Hex-A is composed of an equal number of α and β subunits.

Other minor isoenzyme forms are composed of only α subunits (Hex-S) or other varying combinations of the α and β subunits (Hex-S', Hex-I, Hex-I'). TSD is thought to result from a mutation at the α subunit locus on chromosome 15. Affected children do not make the α subunit needed for Hex-A and are Hex-A deficient. They can make β subunits, however, and Hex-B (β subunits) is usually present in normal or above-normal amounts.

A variant of TSD, Sandhoff Disease, associated with lack of all Hex isoenzymes except the minor isoenzyme Hex-S (α subunits), is thought to result from a mutation at the β subunit gene locus. Sandhoff Disease is clinically indistinguishable from TSD, occurs in children from all races and backgrounds, and can only be distinguished from TSD by enzymatic testing. Deficient activity of the isoenzymes can be easily demonstrated in serum and leukocytes from affected children.

Hex-A can be distinguished from Hex-B by heat inactivation. Hex-B is heat stable and Hex-A is heat labile. Based on this fact, a laboratory procedure for measurement and comparison of enzyme activity before (Total Hex) and after heating (Hex-B) was established with serum and leukocyte samples. This then led to reliable and accurate carrier detection for TSD in the late 1960s.

The Hex-A is calculated as the difference between the Total Hex and Hex-B. Hex-A then can be expressed as specific activity or as a percentage of the Total Hex (%A). The best discrimination between carriers and normals is achieved if the specific activity of the Hex-A is plotted vs the %A (*Fig. 1*). Bivariant analysis of the data also enables the laboratory to set 95 or 99% confidence limits for carriers and normals (*Fig. 1*). In general, carriers have lowered per cent Hex-A when compared to normals.

Carrier Detection Programs

The first community education and screening programs for TSD were established in 1970 in Baltimore, Md., and Washington, D.C. The Jewish communities along with experienced geneticists established education programs, which were followed by voluntary blood screenings for carrier detection. Follow-up counseling was given to persons found to be carriers. Similar programs have since been established in most major cities in the United States and Canada, including Indianapolis, and in other cities in Israel, Europe, and South America.

As of June 1981, more than 350,000 persons had been screened in 102 programs. More than 14,000 carriers were identified and 333 couples were found to be both carriers and at-risk for having children with TSD. The carrier frequency for the American Jewish population has been found to be 1 in 29 in the programs. The carrier frequency in the Indiana Jewish population is similar at 1 in 27.

At present, it is recommended that persons of Ashkenazi heritage of childbearing age be advised that they are at increased risk to be a carrier for TSD and of the availability of blood carrier testing. Persons with a family history of TSD or known carriers, ascertained through the screening programs, should especially consider testing. As with the community programs, individuals presenting for screening should receive appropriate educational counseling prior to testing.

It should be emphasized that blood testing is voluntary and that their results will be held in strict confidence. Persons found to be carriers should be advised that they should inform their relatives of their increased risk. Some stigmatization has been noted in persons found to be carriers in screening programs even with education of the participants prior to testing. It is important, then, that follow-up counseling be given to all persons found to be carriers. The ideal screening time is after marriage and prior to any pregnancies.

It is also important that testing be done prior to pregnancy if at all

possible. During pregnancy the placenta produces additional Hex, which may interfere with testing if serum screening is done. Leukocyte carrier detection may be used with pregnant women, but it is an extremely difficult laboratory procedure and not readily available. Other factors that may interfere with accurate testing include intercurrent illness, chronic disease, medication and oral contraceptives.

If a couple presents for screening when the woman is more than 18 weeks pregnant, carrier testing is usually not done. In this circumstance, the couple is advised to have testing after completion of the pregnancy. If a couple presents and the woman is less than 18 weeks pregnant, the husband is tested. If his test suggests he is a carrier or is inconclusive (5% of samples), then the leukocyte testing is done on the wife.

If the testing shows that both husband and wife are carriers or is inconclusive, then amniocentesis and prenatal diagnosis for TSD are offered. In that amniocentesis is usually done between 16 and 18 weeks of pregnancy, it is important that all carrier detection testing be completed by this time. The serum testing may be completed in one day, but the leukocyte testing may take one week or more. Rushed testing stresses not only the laboratories but also the couple involved.

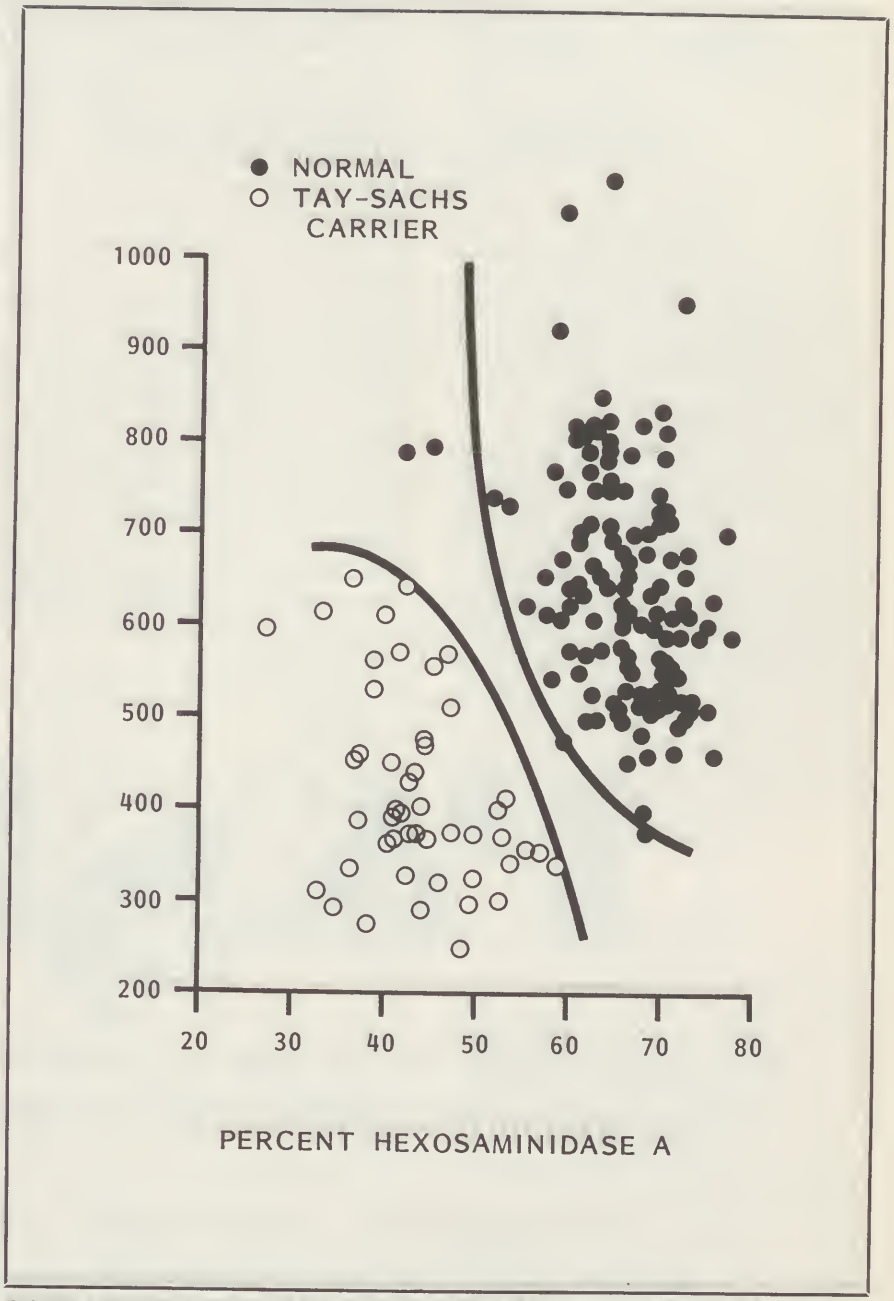


FIGURE 1. Bivariate analysis of Hex-A activity compared to percentage Hex-A of Total Hex for use in identification of Tay-Sachs carriers. (Curved lines indicate the 95% tolerance curves.)

Prenatal Diagnosis

Prenatal diagnosis is available for couples at risk, whether they are the parents of a previous child with TSD or are found to be carriers by screening. Hex-A activity may be determined in cultured amniotic fluid cells obtained by amniocentesis. Such testing is technically difficult and is available only in a limited number of laboratories. Once the amniocentesis is done, it takes two to three weeks for completion of the testing. As of June 1981, 912 pregnancies had been monitored by amniocentesis for TSD. Of these, 202 pregnancies were found to be affected and all but 13 were terminated. One child with TSD was misdiagnosed as being unaffected in utero; no normals were misdiagnosed as being affected.

The impact of carrier detection programs for TSD has been considerable in that the incidence of new cases of TSD has dropped from

40 to 50 per year prior to 1970 to 13 in 1979 in the United States. The carrier detection programs will not decrease the gene frequency for TSD in that the majority of genes are present in single dose in carriers and only a few are present in double dose in affected children. It has, however, allowed for identification of couples at risk for children with TSD and given them the option of having monitored pregnancies for this devastating disorder.

Quality Control

An International Quality Control Center and Reference Laboratory has been established for TSD Carrier Detection. Over the past five years, 41 laboratories throughout the world have voluntarily participated in the program, which includes standardization of testing procedures, maintenance of quality control, and laboratory surveillance. The laboratories are required to determine carriers and non-carriers accurately in coded samples sent from the Reference Laboratory at intervals. The majority of the community screening programs are associated with these laboratories. It should be noted that most commercial laboratories have not participated in this program.

The Pediatric Biochemical Genetics Laboratory at Riley Hospital is an approved testing laboratory and is associated with the Indiana Area TSD Screening Program. The program has participated in community education and screening programs in Indianapolis and Bloomington, Ind., and receives samples for screening from Indiana and Kentucky.

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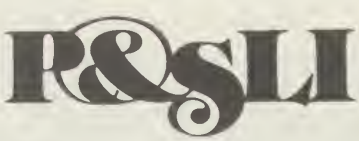


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Common Nephrotoxic Reactions from Diagnostic and Therapeutic Agents

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ADVERSE NEPHROTOXIC reactions may occur following the administration of practically any drug. Most are uncommon; however, some occur with sufficient regularity that they concern any clinician engaged in teaching or in the care of patients. It is the latter category that shall be the focal point of this report.

Analgesic Nephropathy

As a class, non-steroidal anti-inflammatory analgesic agents are associated with nephropathy. The reversible alterations in renal function following the use of these drugs will be dealt with in greater detail in a subsequent report. This discussion is directed at non-prescription items such as phenacetin and phenacetin-aspirin combinations, which have been implicated in the development of interstitial nephritis, papillary necrosis and end stage renal disease.

Although the amounts ingested and the length of exposure are variable, afflicted patients have generally ingested 2 to 3 kilograms of such compounds over several years. It is not always easy to obtain a history of excessive analgesic ingestion since some patients are frequently reluctant to admit their abuse while others simply do not consider the non-prescription compounds as medicines or drugs. The impact of analgesic abuse nephropathy is considerable.

It is estimated that the use of combination analgesics is responsible for at least 5% of all cases of end-stage renal disease in the United States, 17% in Australia, and 22% in South Africa.[1] Analgesic abuse nephropathy is the most common cause of chronic renal failure in dialysis patients in Scandanavia.[1]

These drugs produce a broad spectrum of interstitial renal disease. The pathogenesis of these nephrotoxic reactions is unclear; however, it is well known that discontinuation of these agents generally results in stabilization or improvement of renal function in the majority of patients. Patients continuing their abuse of the drugs will experience an inexorable decline in renal function. Analgesic abuse must be considered in the differential diagnosis in any patient with chronic renal disease. If suspected, patients must be educated as to the risks, and convinced to discontinue the drugs.

Acute urinary tract obstruction is common in patients with analgesic nephropathy. The obstruction is usually the result of papillary necrosis and sloughage. The renal papillae are poorly vascularized structures, which may be compromised in patients with chronic interstitial nephritis. Rapid deterioration of renal function should always suggest papillary necrosis in patients who ingest large amounts of analgesics. This is a serious complication and is more likely to occur in clinical situations where the papillary blood flow is impaired as it is in patients with diabetes mellitus, sickle cell disease, or macroglobulinemia.[1]

Antibiotic Nephrotoxicity

All antibiotics may cause temporary or permanent renal damage; however, it is the aminoglycosides that are by far the most commonly implicated. Aminoglycoside antibiotics (kanamycin, gentamicin, tobramycin and amikacin) are extremely valuable in the treatment of life-threatening, gram-negative, aerobic, bacterial infections. Nephrotoxic reactions, defined as detectable increases in plasma creatinine attributable to no causes other than the drugs, are common, and occur in 10-20% of patients treated with aminoglycosides.[2] The nephrotoxicity generally encountered is reversible, non-oliguric, acute renal failure. Since urine volume may be preserved, nephrotoxicity may not be suspected until it is far advanced.

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The aminoglycosides are eliminated almost entirely by the kidneys. Their therapeutic margin of safety is narrow. A normal dose of aminoglycoside, in the face of a decreasing glomerular filtration rate, will make the nephrotoxicity more severe and may cause ototoxicity as well. Dose adjustment considerably diminishes the chances for the development of severe acute renal failure. An initial creatinine clearance followed by plasma creatinine measurements every three days, together with simultaneous determination of serum aminoglycoside concentration, will aid in arriving at the correct dosage in situations where renal function and renal elimination of the drug from the body may be changing.

Peak serum concentration after injection should not exceed 10 μgm/ml and the highest concentration immediately prior to the subsequent dose (trough) should not exceed 4 μgm/ml. Serum antibiotic concentrations maintained within the accepted range do not provide an absolute guarantee that renal failure will be avoided; however, it will minimize the frequency of nephrotoxicity.[3]

Clinicians must keep in mind that aminoglycoside nephrotoxicity is more likely to occur in conjunction with electrolyte disturbances, dehydration, acidosis, hypotension, the simultaneous administration of cephalothin, and in the elderly.[4] The elderly appear to be particularly at risk since their renal function is frequently overestimated based on a "normal" serum creatinine concentration. The serum creatinine will remain within the range of normal in the aged despite declining glomerular filtration due to diminishing muscle mass and a fall in creatinine production.

Individuals over the age of 65 years may have as much as a 30% reduction in glomerular filtration with no increase in serum creatinine concentration.[5] Determination of creatinine clearance is very important in determining aminoglycoside dosage in the elderly.

Contrast Agents Used in Roentgenography

Nephrotoxicity from iodinated contrast media is common, and the disposing circumstances are well known.[6] Various agents have been implicated, particularly those used to visualize the gall bladder and those used in intravenous pyelography and angiography. The pathogenesis of these adverse reactions is unknown; however, uricosuria, the precipitation of Tamm-Horsfall mucoproteins, oxalic acid deposition, and vascular hyperreactivity have all been implicated.

Patients at risk are the elderly, the dehydrated, those with renal insufficiency (i.e., a subnormal creatinine clearance), proteinuria, myeloma, diabetes mellitus, hyperuricemia, and those undergoing multiple contrast studies.[6] The episodes of acute renal failure following the administration of contrast media may be characterized by either oliguria or non-oliguria and are usually reversible. Adverse reactions may be sharply curtailed by assuring adequate hydration, correcting ongoing underlying disorders, decreasing contrast media dose, and decreasing the number of studies performed.

Lithium

Lithium salts are widely prescribed for the treatment of manic-depressive psychoses. Undoubtedly, the introduction of lithium in the therapy of these disorders constitutes a major advance. However, recent reports suggest that chronic lithium therapy may be associated with significant renal disease, including acute renal failure, nephrogenic diabetes insipidus, renal tubular acidosis, and chronic renal insufficiency. The therapeutic range is narrow with a recommended serum concentration of 0.6-1.2 meq/liter. Concentrations above 1.5 meq/liter are associated with adverse reactions.

Lithium is eliminated from the body predominantly by renal excretion, and any decrease in renal function will result in raised plasma lithium concentrations and potential toxicity.[7] Renal excretion is reduced in the elderly, the half life of a single dose increasing from 18 to 36 hours or more.[8] This is a reflection of the decline in renal function with age, which may not be appreciated unless functions such as creatinine clearance are determined.

Lithium excretion is diminished by sodium deprivation and by the concomitant use of diuretics, especially thiazides. Long-term usage of thiazides is associated with a 40% reduction in lithium excretion, which would raise serum levels and increase the potential for hazardous side effects.[9] The dose of lithium will have to be reduced if diuretics are administered simultaneously.

Polyuria is the most common symptomatic clinical problem due to the renal effect of lithium, and may be expected in 20% of patients.[10] This polyuria is due to a vasopressin resistant nephrogenic diabetes insipidus. Urinary output rarely exceeds 4 liters/day and usually does not require therapy. Patients receiving lithium need to have electrolytes measured, and renal function monitored at least every six months in addition to having plasma lithium concentrations determined as necessary.

Histologic changes in the kidney have been documented by renal biopsy in patients who had no abnormality in renal function using the usual clinical tests. The degree of change was related to duration of therapy. Substantial changes in renal function may occur including a chronic tubulointerstitial nephro-

pathy, which may culminate in renal insufficiency. This indicates the need for frequent reappraisal of the continued use of lithium and discontinuation of the drug as soon as feasible and certainly when any change in renal function occurs.

Adjustment of drug dosage with changing renal function requires sequential measurement of renal function and the serum concentration of the drug. Lithium usage in the population may well increase, and care must be exercised when additional drug therapy is employed.

Factors that reduce lithium excretion from the body, such as diuretic administration, sodium deprivation, or a reduction in renal function, will lead to increased total body concentrations and toxic side effects.

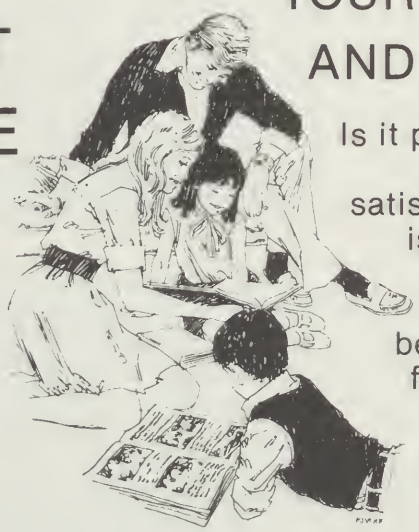
Summary

More vigorous and effective efforts are necessary to educate the public about toxic side effects of drugs that are generally considered benign, i.e., the non-prescription analgesic agents, especially those used in combination. A reduction in the incidence of aminoglycoside nephrotoxicity is possible if renal function is clearly defined and the dose carefully determined.

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Percutaneous Transluminal Coronary Angioplasty: Successful Application in a Community Hospital

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In 1964, Dotter and Judkins developed a new method of non-operative dilatation of peripheral vascular stenoses using a catheter to enlarge the lumen of a blocked artery.[1] This technique was used only minimally in the United States, but in Europe the percutaneous technique was expanded, refined, and has become widely used.

In the early 1970s, Andreas Grüntzig modified the Dotter technique to allow percutaneous dilatation of renal and iliofemoral stenosis by the use of a double lumen balloon-tipped catheter.[2] In 1977, Grüntzig performed the first successful percutaneous transluminal coronary angioplasty (PTCA) in Zurich, Switzerland.[3] Through a cooperative study performed under the auspices of the National Heart, Lung, and Blood Institute, more than 1,500 PTCA procedures have since been performed in this country with encouraging initial results.[4]

At present, PTCA is indicated for the relief of angina pectoris in individual patients with proximal coronary artery stenosis who are otherwise considered acceptable candidates for coronary artery bypass graft surgery. In this paper, we wish to familiarize the reader with the technique and have summarized our results at the St. Vincent Hospital and Health Care Center in Indianapolis, Indiana.

Technique

Percutaneous transluminal coronary angioplasty is performed in a fashion very similar to routine cardiac catheterization. Suitable candidates for the procedure are identified by coronary arteriography. Coronary angioplasty is then scheduled semi-electively after obtaining informed consent for the procedure. It is performed in a Cardiac Catheterization Laboratory at a time when cardio-thoracic surgery standby is available.

The procedure is performed with the patient under mild sedation. Local anesthetic is used to allow the femoral artery to be entered percutaneously, just as is done in routine cardiac catheterization. The guiding catheter, which is shaped exactly like a routine coronary catheter but with a slightly larger lumen, is placed in the ostia of the involved coronary vessel. A very thin balloon-tipped catheter may then be advanced through the guid-

FIGURE 1
Panel A: A cross sectional view, cut longitudinally, through a region of coronary artery stenosis.
Panel B: The balloon-tipped dilating catheter has been advanced across the region of coronary artery stenosis (balloon deflated).
Panel C: The balloon has been inflated to enlarge the luminal diameter of the coronary artery in the region of stenosis.

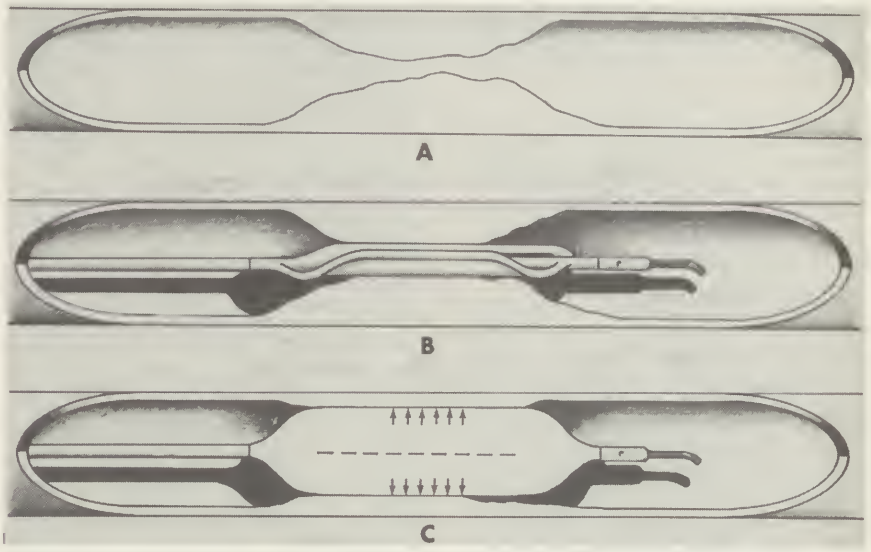








FIGURE 2A: Pre-angioplasty left anterior oblique projection of the left coronary artery showing a critical proximal stenosis in the left anterior descending coronary artery.

FIGURE 2B: Immediately post-angioplasty angiogram in the same projection, showing only a mild residual irregularity at the site of the previous stenosis.

FIGURE 2C: Nine-month post-angioplasty angiogram, again in the same projection, showing the excellent long-term result achieved by PTCA.

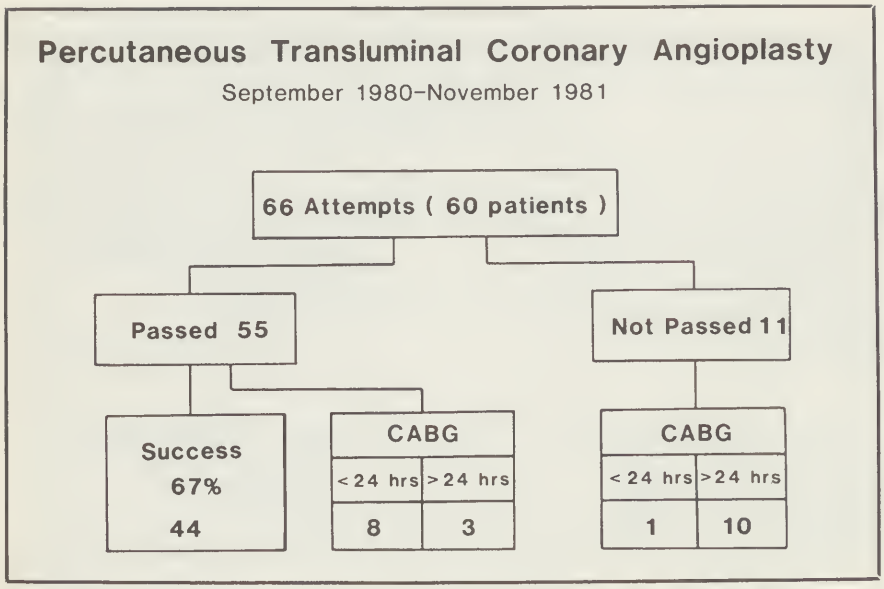


FIGURE 3: Summary of our initial PTCA experience between September 1980 and November 1981. (See text for details.)

ing catheter and across the coronary artery stenosis. *(Figure 1, panels A and B).*

Pressure tracings are monitored from both the distal and proximal sites of the balloon catheter to record the gradient that is present across the coronary stenosis. The balloon is then inflated *(Figure 1, panel C),* thus compressing the atheromatous material, splitting the atherosclerotic plaque, and/or stretching the non-involved media.[5]

When the balloon is deflated, the pressure gradient is again recorded to ascertain the need for repeat inflations of the balloon. Successful dilatation results in removal or marked reduction of the trans-stenosis pressure gradient. When the operator has determined that the pressure gradient has been maximally reduced, the balloon-tipped catheter is withdrawn from the coronary artery and repeat coronary arteriography is performed to document the angiographic reduction in the luminal narrowing at the site of the pre-existing stenosis. All catheters are then removed and hemostasis is achieved at the femoral artery by local pressure.

The patient is returned to the Coronary Care Unit for 24 hours of monitoring. Forty-eight hours following the procedure, treadmill stress testing is performed prior to discharge. The patient is followed with repeated graded exercise testing every two months and repeat arteriography is scheduled between six and nine months following the procedure. A representative case with initial success and long-term patency is shown in *Figures 2A, 2B and 2C.*

Results

We performed 66 PTCA procedures between Sept. 1, 1980, and Nov. 30, 1981. The results are shown in *Figure 3.* As has been recorded by other operators, experience results in both improved success rate and improved ability to manipulate the catheter across the lesion. Experience also results in improved patient selection, with single proximal fusiform stenosis in the left anterior descending coronary artery being the most approachable lesion. Stenoses in the right coronary artery and circumflex coronary artery are more difficult technically, and therefore less frequently successfully dilated.

In our experience, the last 33 cases show a primary success rate of 73%, compared to our initial 33 cases, which showed a primary success rate of only 60%. Complications are infrequent but are generally managed with relative ease. The most frequent reason for failure to dilate a stenosis is the inability to advance the catheter across the lesion. If this does occur, the patient is simply scheduled for elective coronary artery bypass grafting.

The most serious complication encountered is acute occlusion of the vessel during or immediately after dilatation, either by dissection of the artery or refractory coronary spasm. This requires emergency coronary artery bypass grafting, which can be performed in our institution within 30 to 45 minutes. Less serious and less frequent complications are local hematoma at the site of catheter insertion, transient chest pain following the dilatation, and transient supraventricular and/or ventricular arrhythmias. Recurrent stenosis also has been observed at the site of dilatation on subsequent catheterization, but this is usually amenable to repeat angioplasty.

Discussion

PTCA results in improved myocardial perfusion by restoring normal or near-normal coronary artery flow past the site of a significant coronary stenosis. At present, it is indicated in patients with an unacceptable degree of angina pectoris under medical treatment who are candidates for coronary artery bypass surgery. It is most likely to succeed in patients with proximal, discrete, concentric, non-calcific, segmental, high-grade, single vessel coronary artery stenosis with normal left ventricular function. These patients generally have a history of angina pectoris of short duration.

In a cooperative study conducted by the National Heart, Lung, and Blood Institute, the 73 participating centers had enrolled 1,500 patients by April 1981.[4] These investigators achieved a 63% primary success rate, with one or more major complications occurring in approximately 10%. (Acute myocardial infarction—5%, emergency coronary artery bypass surgery—required in 7%, significant vascular compromise at the site of catheter insertion—1%, death—1%.) We have been constantly gratified to note that our statistics, although much smaller in patient numbers, continue to closely parallel those of our colleagues at these other institutions.

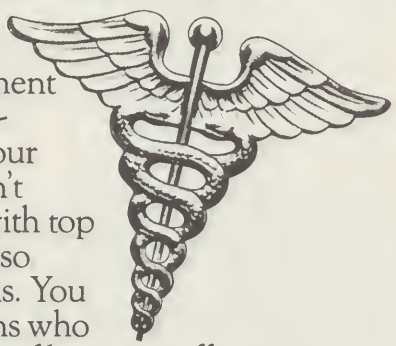
With a success rate of up to 75%, mortality rate of less than 1%, and a small (less than 10%) risk of significant complication, the procedure becomes a very attractive one for a suitable candidate; particularly when compared to the morbidity, mortality, and expense of surgical myocardial revascularization using saphenous vein bypass conduits.

Unfortunately, at present, only 5-10% of patients who undergo catheterization and who are candidates for bypass grafting in our institution are candidates for the angioplasty procedure because of advanced, multivessel coronary artery disease or prior myocardial infarction. Because percutaneous transluminal coronary angioplasty is most applicable and successful in patients with recent onset of angina pectoris, the current trend toward early diagnostic intervention with cardiac catheterization in young individuals would seem both appropriate and desirable. PTCA may offer a significant proportion of these patients a non-operative alternative to treatment of angina pectoris due to coronary artery stenosis.

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Prenatal Diagnosis: Chromosome Disorders

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PRENATAL DIAGNOSIS for chromosome disorders has grown at a rate of about 100% per year for the past three years. The growth pattern in Indiana has paralleled the national trend. The major reasons for this growth are: 1) increased public awareness about amniocentesis; 2) the established safety of the procedure; 3) the accuracy of the chromosome studies; and 4) physician awareness of legal action taken in cases where amniocentesis should have been offered.

Prenatal diagnosis of chromosome disorders can have a significant impact on the incidence of mental retardation.

Seven per cent of newborns have birth defects that will be diagnosed by one year of life. About half of those affected will have mental impairment. In pregnancies screened, more than 0.5% have chromosome anomalies, and 60% (0.3%) of these disorders are associated with mental retardation.

Mentally impaired individuals, with chromosome disorders, probably carry the largest medical and financial burden. Of those institutionalized or seeking services for the moderately retarded, 30% to 40% have Down Syndrome or Klinefelter Syndrome. Thus, for women who have prenatal diagnosis the risk of mental retardation among their offspring is reduced by more than 10% (i.e. the test can remove 0.3+% from their overall risk of 3% for a fetus who will develop mental retardation). These figures are conservative, based upon the risk for an average pregnancy as opposed to those with an increased risk (e.g., advanced maternal age).

High Risk Groups

Who needs prenatal diagnosis for chromosome studies? There are six high risk categories of women for whom prenatal diagnosis is recommended. These are women:

- who will be at least 35 years of age or under 15 years of age at delivery.
- who previously had a child with Down Syndrome or any other chromosome anomaly.
- who have a history of thyroid disease.
- who are translocation carriers or whose mates are translocation carriers.
- who have elevated maternal serum AFP tests.
- who are carriers for any X linked disease (e.g., Duchenne muscular dystrophy or hemophilia)

Maternal age effect is the single most important risk factor for which fetal chromosome studies are performed. Women over 35 years of age carry 2-3% of all pregnancies and they have about one-half of the babies with Down Syndrome and Klinefelter Syndrome. Also, it should be noted that the cohort of women born during the baby boom are beginning to increase this group. Girls less than 15 years of age are approximately at the same risk as women at age 35. Empiric studies of women with a first child with Down Syndrome or with a history of thyroid disease show a recurrence risk of 1-2% and 2-4%, respectively. Although an individual's chance of carrying a balanced translocation is 1/500, once the carrier state is established the risk of conceiving a fetus with a chromosome disorder can be high. The exact risk is dependent on the type of translocation and whether the mother or father carries it.

In the United Kingdom a practice was established during the 1970s to obtain maternal serum alpha fetoprotein (MSAFP) on obstetrical patients between 14 and 17 weeks gestation. This screening has led to the prenatal discovery of 85% of cases with anencephalia and open spina bifida. This test, although still controversial in the United States, is gaining acceptance and is likely to become widespread. One of the unanticipated benefits of this test has been that elevated MSAFP is associated with an increased risk for certain chromosome abnormalities in the fetus. Therefore, when amniocentesis is sought because of elevated MSAFP, chromosome studies are indicated.

Amniocentesis

The optimum time to refer patients for prenatal diagnosis of chromosome disorders is at eight weeks of gestation. This provides time for scheduling and arranging for the amniocentesis to be done with ultrasound. The chromosome

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studies require about three weeks to complete. Amniocentesis should be done before the 17th week and we recommend the 15th week. This allows for a repeat amniocentesis (occurs in about 1 in 20 cases), culture time, and preserves the option to terminate by 20 weeks gestation in Indiana. After 20 weeks termination may be performed out of State. Pregnancy termination is not legal after 24 weeks (usually defined by a fetal skull diameter of > 6 cm).

Physicians' Responsibility

An important part of any medical practice is reassuring anxious patients that a risk is relatively low. Pregnancy is not exempt from this type of anxiety and with the news in the media concerning birth defects and prenatal diagnosis, expectant mothers can experience anxiety at the possibility of a congenital malformation. This can create a problem for the practicing physician. One wishes to reassure the expectant woman and reduce her stress, but does not want the reassurance to be interpreted as a guarantee. We think it is important for the physician providing this type of genetic counseling to: a) avoid giving a zero risk; b) seek risk figures which are quantitative, such as 1% or 5% rather than "low" or "moderate"; c) document in the patient record the genetic counseling and the risk figure given; and preferably d) dictate to the patient a short note concerning the risk. The purpose of this is to provide good genetic counseling and to document that it is the patient who chooses to take the risk and not the doctor. Recent successful legal cases have been brought against physicians who have not apprised patients of their recurrence risk. We advocate going one step further and documenting the counseling in writing to the patient.

Summary

Amniocentesis for chromosome disorders began more than a decade ago in Indiana and the nation. It is an accepted practice for pregnancies that are at increased risk for chromosome disorders. The major risk factors are maternal age, a previous child with a chromosome disorder, translocation carriers, and thyroid disease. We recommend amniocentesis at 14-16 weeks and documentation of the physician's genetic counseling.

The direction of the counseling is toward the patient and her family making a decision based upon the risk of an affected fetus, the risk of the amniocentesis, and the family's values. In light of recent legal cases, it seems the physician takes an unnecessary risk in making the decision about prenatal diagnoses solely on medical grounds without documented disclosure to the pregnant woman and her mate.

Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	TRIMIPRAMINE	TRIMEPRAZINE
Category:	Antidepressant	Antihistamine
Brand Name:	Surmontil, Ives	Temaril, SKF
Generic Name:	Trimipramine Maleate	Trimeprazine
Dosage Forms:	Capsules	Tablets, Syrup, Sustained-release Capsules

	CHLORPROMAZINE	CHLORPROPAMIDE
Category:	Antipsychotic	Antidiabetic
Brand Name:	Thorazine, SKF Promapar, Parke-Davis	Diabinese, Pfizer
Generic Name:	Chlorpromazine HCl	Chlorpropamide
Dosage Forms:	Tablets, Syrup, Injection, Concentrate, Suppositories, Timed-release Capsules	Tablets

Some Fallacies of the Gori Report on Less Hazardous Cigarettes

G. H. MILLER, Ph.D.
LINWOOD J. PEARSON, M.D.
JOHN A. SCHUMAKER, Ph.D.

IN AUGUST 1978 the news media gave wide coverage to the report of an unpublished study which supposedly showed that the new low tar-low nicotine cigarettes were "less hazardous" to a smoker's health.[1,2,3] Newspapers and magazines gave specific data on the exact numbers of cigarettes that smokers could smoke with a risk of contracting cigarette-related diseases identical to that of the non-smoker. Although this information was immediately disputed by outstanding research specialists such as Dr. Julius Richmond (the Surgeon General) and Dr. Arthur C. Upton (then Director of the National Cancer Institute), their comments were hardly noticed because of the overemphasis of headlines proclaiming "Dr. Gori's Ordeal,"[1] "Some Cigarettes Now 'Tolerable,' Doctor Says,"[2] and " 'Tolerable' Cigarettes?"[3]

The impact of these statements was particularly effective since the information was attributed to the Director of the Smoking and Health Research program of the National Cancer Institute, Dr. Gio Gori. Since then, there has been little published in the professional journals or newspapers to counteract the misinformation.

The information in Gori's study was given to the press before the article was published and even before a publication date was designated in the *Journal of the American Medical Association*.[4] Since the article had not been published, it was not possible for the peer review process to take place. The practice of releasing data on a study before publication in a journal usually is considered unacceptable. The publication of the article had not been approved by Dr. Upton of the National Cancer Institute nor by Secretary Califano of HEW and undercut their campaign on the prevention of smoking.

It appeared that Dr. Gori provided the tobacco industry with data of vital importance at that time. They needed a "valid" study by a respected scientist to demonstrate that the development of the new low tar-low nicotine cigarettes, which had been heavily advertised by the tobacco industry, was a major advance for the health of smokers.

Also at that time, the editors of *JAMA* were placed in an embarrassing position. They had accepted the Gori-Lynch article, which tended to support the tobacco industry's contentions, and at the same time they had released their report, "Tobacco and Health,"[5] which tended to show that cigarette smoking was dangerous. This report had been supported by the Tobacco Institute, which supplied more than $15 million to hundreds of research specialists since the Tobacco Institute disagreed with the report published by the Surgeon General.[6] After the AMA report was released, an Associated Press reporter[1] interviewed Gori on the results of his study and quickly disseminated this information to the media. One month later the article did appear in *JAMA* with editorial comments on the peculiar set of circumstances leading to publication of the article.[7]

Several letters to the editor, including one from Miller and Schumaker,[8] were written pointing out the innumerable deficiencies in the Gori-Lynch study. These comments received little publicity in the press, and a more detailed analysis was needed to show the basic fallacies committed by Gori and Lynch in obtaining their data.

The foundation of the article by Gori and Lynch was originally published in a separate article by Gori in a December 1976 issue of *Science*.[9] In this article Gori developed a questionable concept, which he designated as the "Critical Value." He defined the "Critical Value" (CV) as "the smoke intake dose at which the risk of disease is approximately the same as the nonsmoker." Making use of a hypothetical formula involving the

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quadratic equation $P = A_o + A_1X + A_2X^2$ and the statistical technique of least squares, he purported to establish the greatest number of cigarettes that a cigarette smoker can smoke (the Critical Value of CV) without exceeding the risk of the non-smoker. These values were supposed to be derived from data of other studies reported in the literature, a highly invalid method of analysis. Using these statistical techniques, he arrived at three different categories of CVs: Low, Medium, and High. It is interesting that in the article, as well as in the press releases, Gori never used the Low and Medium CVs but always the High CVs. This is a bias in favor of his contention, let alone the questionable designation of three distinct but different "Critical Values" in place of one value.

An analysis of his first table reports data that imply the smoker can consume 10 cigarettes a day and have no additional risk over the non-smoker in contracting diseases such as cancer of the oral cavity, esophagus, larynx, lung, bladder, or kidney. While Gori's table may indicate a specific level of safe smoking, consideration of studies of large numbers of smokers by Doll[11] and Miller[12] shows that the smoking of only a few cigarettes (1 to 10) causes serious damage to health.

Information obtained from Gori's third table indicates that a 4.8% carboxyhemoglobin level in the blood meets his safety requirement. However, such high carboxyhemoglobin levels in the blood stream appear to damage the cardiovascular system, as noted in studies by Astrup.[10] Thus, the data Gori reported in *Science*[9] cannot be correct, despite the use of complex statistical computations, because his implied conclusions do not correspond with reality.

To add to the present problem, the original article received no critical reviews because of the decisions made by the editorial staff of *Science*. Critical letters were written by Gart and Schneiderman of the National Cancer Institute and Miller but were not published.[13] Had they been published, it is possible that the second article by Gori, which included the junior author Lynch, would have received greater scrutiny by the *JAMA* editorial staff.

Shortly after the media coverage, an article appeared written by one of the *Science* news editors which tended to support the Gori-Lynch development and opposed Secretary Califano's replacement of Gori as Director of the Division of Research on Smoking and Health.[13] In this article the news editor mentioned the letter by Drs. Gart and Schneiderman of the National Cancer Institute, which was critical of Gori's report in the December 1977 issue, and reported that the letter had not been accepted. It was not until May 1979 that *Science* finally published the Gart-Schneiderman letter along with a long rebuttal by Gori and Lynch.

In their highly publicized article, the authors Gori and Lynch make use of the fallacious concept of CV to establish CVs for six compounds that had been measured and reported on by a research team of the Oak Ridge National Laboratory.[14] These compounds analyzed were tar, nicotine, carbon monoxide, nitrogen oxides, hydrogen cyanide, and acrolein. Using the lowest values for the post-1960 cigarette components and the highest values for the pre-1960 cigarettes, they established the percentage reduction in cigarette smoke of the six different compounds in the 27 brands tested by the Oak Ridge National Laboratory. Using these differing values of smoke components, they were able to maximize the bias supporting their contention. The above discussion has shown the extremely doubtful accuracy of computations for CVs. On this basis alone, the conclusions derived from the Gori-Lynch data are very doubtful. However, a detailed analysis of their report shows additional serious deficiencies. For purposes of brevity, we will consider only three of the more serious.

First, the authors considered all six toxic substances as though they had the same proportional impact, despite the clear indications that tar, nicotine, and carbon monoxide were measured in milligrams while nitrogen oxide, hydrogen cyanide, and acrolein were measured in micrograms. A simple computation shows a thousand-to-one ratio between the first three compounds and the last three compounds. Since the precise impact of these compounds is unknown, their hypothetical proportional impact must be completely invalid. For example, recent research shows that nicotine absorbed in the process of smoking, although highly addictive, is not very dangerous to the health in such minute quantities.[15,19] Since this is the compound in which the greatest reductions appear, any major reductions in nicotine do little to make the low tar-low nicotine cigarettes "less hazardous."

Second, the authors overlooked the consequences of the recent research by Wald,[16] which essentially shows that the post-1960 "less hazardous" cigarettes produce higher carboxyhemoglobin levels when compared with regular cigarettes. The higher carboxyhemoglobin levels of these so-called "safer" cigarettes should produce higher levels of cardiovascular diseases, which may more than counteract any reduction in cancer deaths due to lower tar content.

Third, and perhaps the most serious of all the deficiencies, is the authors' complete disregard of the potentially harmful compounds that are formed from the combustion of the new additives used in the flavoring and the new types of organic compounds that are placed in the cigarettes in lieu of tobacco. Gori and Lynch maintain that no con-

clusive evidence exists to show that the new compounds in the low tar-low nicotine (LT-LN) cigarettes are deleterious to the smoker's health. They support this statement with a few studies done within the last decade by Bross[17] and Wynder.[18] These studies tend to show that the new LT-LN cigarettes appear to be safer. In a recent article by Miller,[19] the validity of these studies has been seriously questioned. Also, one should be aware that these new LT-LN cigarettes are so new that conclusive evidence on their safety is not available.

On the other hand, there is sufficient information from related research to question seriously the idea that the new LT-LN cigarettes are less hazardous. In the review of the research, it is shown that any plant such as tobacco or any other organic compound subjected to the combustion process produces at least two deadly compounds: 1) Tars—a collection of residues, some of which have been linked to cancer, and 2) Carbon Monoxide—an easily absorbed compound producing carboxyhemoglobin levels known to be responsible for cardio-vascular diseases. While it is true that reduction of the six compounds might curtail the risks of cigarette-related diseases for the smoker, it is just as likely that the synergistic effect from the combustion of the newer compounds might actually be more destructive to the health of the smoker.

In a related study, Miller[20] has shown that the reduction of tars and nicotine in filter cigarettes apparently does not promote longevity of smokers since non-filter cigarette smokers appear to live as long or longer than those smoking the newer filter cigarettes. The study does substantiate Wald and Astrup's theory that the higher levels of carbon monoxide in the blood are detrimental to the smoker's health. The most recent report by the Framingham Group[21] shows an increased risk of cardiovascular disease for those changing from non-filter to filter cigarettes.

Perhaps the most serious of the problems caused by prepublication notices in the media is that smokers, former smokers, and non-smokers may be misled by glowing reports of the so-called "less hazardous" cigarettes and either increase their smoking levels or start smoking. This justification for smoking can be attributed to remarks made by Gori. For example, a month before Gori's article appeared in *Science*,[22] he was quoted in *Chemical and Engineering News* as follows: "If low hazard cigarettes become generally available and used by 1990, then by 2008 it may be possible to save 300,000 to 600,000 lives per year." Also, before publication of the *JAMA* article, Gori was quoted in the *Washington Post*[1] and the *Washington Star*[2] as saying, "If we could go from 100,000 cases of lung cancer a year to say 2,000 or 3,000 by the development of less hazardous cigarettes, I would still regret the 2,000 to 3,000 deaths but I would think that we would have made a tremendous public health gain."

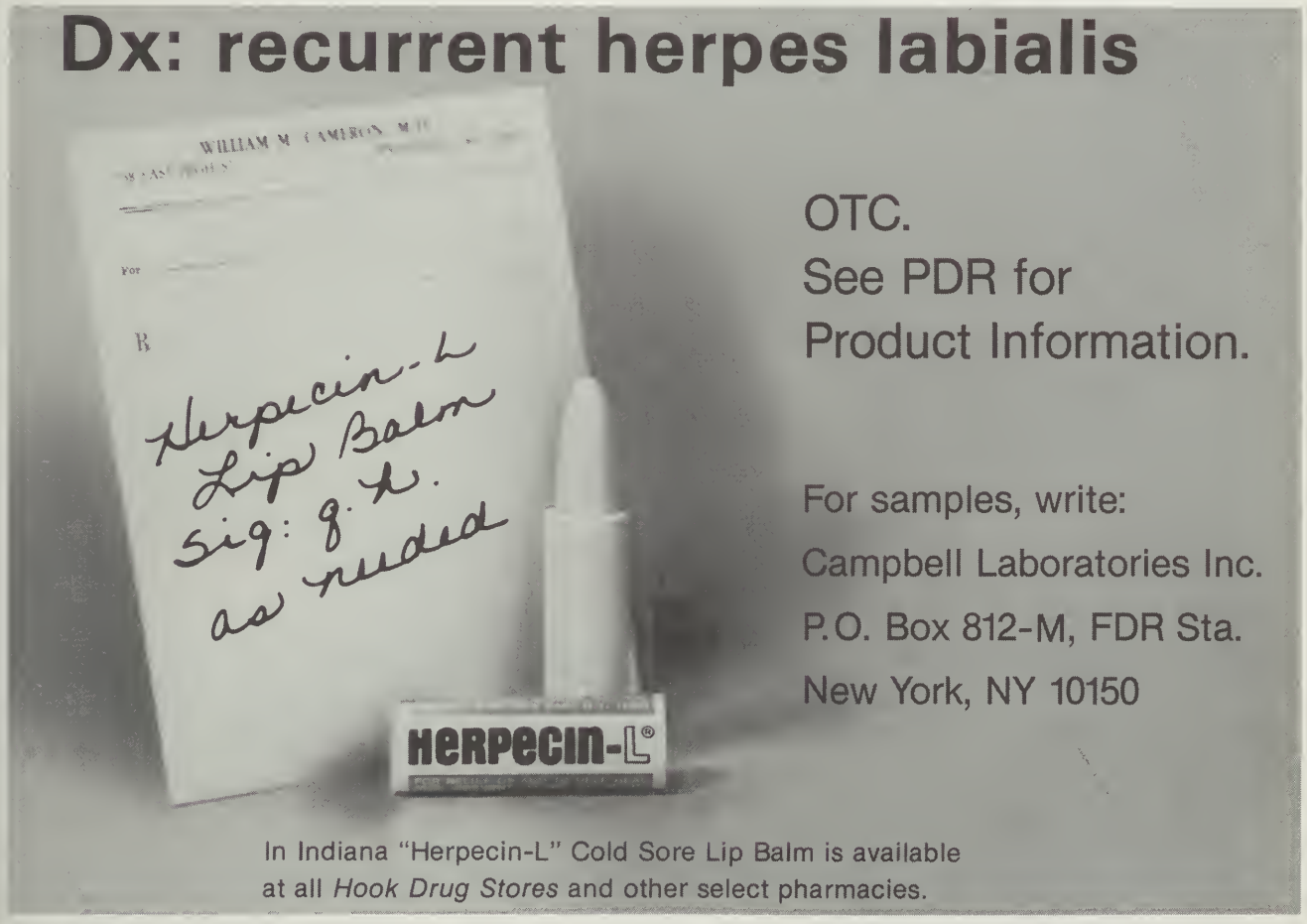
Further analysis of the news media articles shows that the *Washington Post* printed the "Doctor's List of Cigarettes and Their 'Tolerable' Levels," and *Newsweek* provided their readers with pictorial representations detailing the specific brands as well as the numbers of "safer smokes" that smokers could smoke with little risk to themselves. These quotas of less hazardous cigarettes were credited to Gori in the news releases, but these data were not found in the *JAMA* article printed one month later. Gori and Lynch merely reported the critical values of the six cigarette smoke components for the 27 brands. No computations were indicated that would combine these six components to arrive at the specific numbers reported in the news media. Thus, the discriminating reader of both the news media articles and the *JAMA* article is left in a quandary as to how Gori arrived at his specific number of less hazardous cigarettes that could be smoked with no additional risk when compared with the non-smoker.

Statements of this nature indicate an extremely over-optimistic projection of the safety of the low tar-low nicotine cigarettes. It should be noted that the Gori-Lynch data are statistical computations based on invalid hypotheses and therefore are hypothetical and unsubstantiated. Consideration of the incidence of lung cancer cases provides no cause for optimism. Lung cancer cases have been rising constantly. In a recent study by Miegs,[23] women in Connecticut in the 35 to 44 age category were reported to have contracted more cases of lung cancer than men in the same age category. Since it is this lower age cohort of women who are smoking the LT-LN cigarette nearly exclusively, these data present no evidence on the safety of the LT-LN cigarette. On the contrary, it appears to show that the LT-LN cigarettes may be worse.

While certain health professionals who are aware of the deadly impact of cigarette smoking may not believe that such a report could have a harmful effect on smokers, they may have underestimated the impact of the media messages. For example, there have been numerous reports of physicians instructing their patients to switch to the safest of the cigarettes reported in the article rather than advising them to quit smoking. Since the studies made by the advocates of the "less hazardous cigarette" have such serious weaknesses, and since recent studies on cancer incidence do not confirm any such health benefits, physicians should recommend that their patients STOP smoking rather than switch to the so-called "less hazardous" cigarettes.

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	Mazindol	Nonphenylethyl-amine	33-55 hrs.	1 & 2 mg tablet	Mild euphoria, mild stimulation
	Fenfluramine	Secondary	10-30 hrs.	20 mg tablet	Moderate sedation (mild to moderate depression, a side effect, is also sometimes designated as a CNS effect)
	Phentermine	Primary	19-24 hrs	8 & 37.5 mg tablet, 8, 15 & 30 mg capsule 15 & 30 mg capsule (resin complex) 15 & 30 mg timed release capsule	Mild euphoria moderate stimulation
High Abuse Potential	**Phenmetrazine**	Secondary	7-9 hrs.	25 mg tablet, 50 & 75 mg prolonged action tablet	Marked euphoria, marked stimulation
	Amphetamine	Primary	10-30 hrs.	Various	Marked euphoria, marked stimulation

[a]Delayed release characteristics of certain dosage forms must also be taken into account.

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CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personalty changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine*) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage

Product information as of June, 1980

Reference: 1. Abramson R, Garg M, Cioffari A, and Rotman PA: An Evaluation of Behavioral Techniques Reinforced with an Anorectic Drug in a Double-Blind Weight Loss Study. J Clin Psych 41:234-237, 1980.

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Follow-up of these patients over a three-year period revealed no problems either in terms of clinical symptomatology or worsening of hypertension or renal function deterioration. In all, hypercalcemia persisted at relatively stable levels throughout the three-year period.

This observation would suggest that some patients with primary hyperparathyroidism, who are high surgical risks, are well served by careful observation and that in this group surgery would only be indicated in the face of difficulties such as renal function deterioration, increasing symptomology, or difficult blood pressure control.

Prazosin: Long-Term Treatment of Moderate and Severe Hypertension and Lack of 'Tolerance'

Development of "tolerance" to the initial beneficial effect of prazosin when used in the treatment of severe CHF led to efforts to find evidence for development of similar tolerance in patients treated with this agent for hypertension.

Forty patients with moderate to severe hypertension were followed for a minimum of five years while on prazosin, a diuretic, and often a third drug such as propranolol or alpha-methyldopa.

After initial blood pressure control was established, there was no evidence of increased drug requirement or worsening of hypertension, suggesting a lack of development of "tolerance" to prazosin in even this group of moderate to severely hypertensive patients.

Methicillin Resistant Staphylococcus Aureus Bacteremia

Fifty-three per cent of a series of nosocomial *S. aureus* infections acquired in a two-year period ending Dec. 31, 1980 at the Royal Melbourne Hospital were methicillin resistant (MRSA). The patients were seriously ill and each had an intravascular foreign body in situ at the time. Many had been treated with broad spectrum antibiotics during the weeks preceding clinical infection with the MRSA.

Only a single strain of the MRSA was gentamicin sensitive, and these organisms were also resistant to cephalosporins, erythromycin, lincomycin, and tetracyclines. Vancomycin appears to be the drug of choice for these MRSA, as MIC levels of less than four micrograms per ml were consistently obtained for vancomycin.

Resistance to rifampin was likewise not encountered and, although this drug is not appropriate as single agent therapy due to the rapid development of resistant strains, it may have a synergystic role with vancomycin in certain patients.

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2. Kincaid-Smith P, *et al:* Prazosin: Long-term treatment of moderate and severe hypertension and lack of 'tolerance.' *Med J Australia,* 2:146-147, 1981.
3. Methicillin resistant staphylococcus aureus bacteremia. *Med J Australia,* 2:191-194, 1981.

LAST CALL . . .

Your subscription to THE JOURNAL expires with this issue if you have not yet paid your 1982 ISMA membership dues. Questions? Call 1-800-382-1721.

RONALD G. BLANKENBAKER, M.D.
State Health Commissioner

New information from
Office of the Commissioner
Indiana State Board of Health
1330 W. Michigan St.,
Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

Developing Comprehensive School Health Programs

School-aged children and youth are a healthy group of individuals, especially when statistically compared to individuals in other age groups. The life-threatening problems of infancy are past and the chronic health problems of adulthood have not yet presented themselves. Consequently, physicians do not generally see the 6 to 18-year-old regularly or frequently—certainly this group visits the office far less frequently than the infant or older adult. When they do come in, the most common problems are upper respiratory conditions, accidental injuries, and injuries resulting from violence. It has been estimated that more than 200 million school days are lost in the United States each year, or about five days per child, due to acute illness.

These few facts may not appear too alarming but a closer look convinces most health professionals that there is reasonable cause for concern about the health of school-aged children. For example, in the 1980-81 school year, reports to the Indiana State Board of Health revealed that nearly 40% of high school students still had not completed the immunizations required by state law. Though the occurrence of the so-called "childhood illnesses" is falling, reducing the incidence of vaccine-preventable diseases to zero in the total school-age population is cost-effective and should be an absolute priority.

There are other disturbing problems regarding the health of school-aged children and youth. One such concern is demonstrated by an American Health Foundation survey, which indicated that about 40% of school children 11 to 14 years old in their sample exhibited one or more of the risk factors associated with the development of arteriosclerotic disease: overweight, cigarette smoking, hypertension, poor physical fitness, diabetes or high serum cholesterol. These are predominately health risks that are created by life-styles and are theoretically preventable or controllable.

The high incidence of accidental deaths and injuries, many of which are associated with motor vehicles, is also disconcerting.

In 1980, 82 children 5 to 14 years of age were killed in automobile accidents in Indiana, and 40 lost their lives in other accidents.

In the 15 to 24 age group there were 425 deaths from motor vehicle accidents and 135 from other accidents. All together, 75% of the 1,042 Indiana deaths in this age group were attributable to violence (accidents, homicide, suicide).

Very likely, according to published data, these accidents often result from poor judgment, substance abuse, or both—all are potentially preventable problems.

Given, then, that school-agers generally have the least contact with the medical care community and yet have significant need for input from health professionals because of the opportunities that exist for influencing their choice of health behaviors, it is appropriate that a broadly based school health program be encouraged and supported in each local school corporation.

A comprehensive school health program is four-pronged and should include the following components:

1. Maintenance of a healthful physical and social environment in which a student is given an opportunity to learn.
2. Provision of personal health services to promote health, prevent disease, detect deviations from a healthy state, and offer remedial services under medical direction, when necessary.
3. Provision for health education to encourage adoption of health promoting behaviors.
4. Establishment of mechanism for relating the school health program to the health of the family and the community at large.

The school health program that incorporates these components is one which would obviously be integrated with the school's educational process. To be successful it must be reasonable, realistic and of interest to the student. As such, the school health program would contribute to the actualization of each child's potential as a learner and prepare him/her to be an active participant in contacts with health professionals and the medical care system as a whole.

Unfortunately, the school health program is frequently given lip-service, and nothing more, by the various health care professions, which undermines the program and renders it ineffectual. True cooperation with the educational process by health professionals, along with integration of these teachings into the health care delivery system, are keys to a process that will result in healthier and happier Hoosier children and youth.

Your public health agency is committed to strong, viable school and community health programs and will be supportive of the efforts of the medical professions, when appropriate.



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AUXILIARY REPORT

Marianna (Mrs. Glenn W., Jr.) Irwin
President, ISMA Auxiliary

The Year in Review

The Auxiliary is grateful for the coverage you have afforded us this past year with a page in THE JOURNAL. Our goal in using it has been (if you will pardon the expression) to keep the "staff" side of medicine aware of the current activities of the "dis-staff" branch. We have attempted to keep you informed with short, readable articles and, via the monthly pictorial display, to have you meet some of the women throughout the state who are working for you.

As we approach our annual April convention, I realize, in retrospect, the year has gone quickly. I have found the position of state president to be an on-going, continuous, and nigh onto "ever present," albeit fascinating, task.

As we approach the "changing of the guard" I would like to take this opportunity to tell each of you how much I have enjoyed the opportunity to work with you and to share common concerns. The year has been a growth experience for me. Not only have I learned a great deal by sitting with the ISMA Board but, at the national level, the leadership training offered to state and county officers presented an unparalleled opportunity for growth. (Speaking of National, this article would not be complete without pointing with pride to Indiana's own Margo Smith—who currently holds the position of 1st vice-president!)

This article will conclude my year; however, it is not my intent here to summarize the entire 12 months. Rather, I would like to mention some "pluses" I consider to have been accomplished.

1. MEMBERSHIP IS UP. Living as we do in an era when organizations must be viable to survive, I consider this an important sign.

2. DIRECT MEMBERSHIP FOR RESIDENT/INTERN SPOUSES. We are producing more new physicians per year than ever before in our history. This is the first year Indiana has used the direct membership approach.

Our response has been quite unexpected. The first meeting attracted over 100 and resulted in a 50% return, or 56 new members. The second meeting was attended by 50. The excitement of the group at being "sought out" was evident. A strong request to continue meeting was verbalized. I consider this year's results a good beginning.

3. AMAERF UP! At the time of this writing our projects have generated contributions $5,000 ahead of this time last year.

For the first time the Auxiliary has been asked to sit with the Medical Education Fund Committee, which determines how AMAERF funds are spent. This is proving to be a positive motivational tool for the Auxiliary—an action long overdue!

4. LEGISLATIVE WORKSHOPS HELD WITH THE ISMA. This first-time event was a great plus for us. It saves duplication of effort, since our legislative goals are yours. It proved a more effective vehicle than we had been producing on our own.

5. HEALTH PROJECTS. Each county has its own health philanthropy *in addition to* AMAERF. We are in the process of compiling, for the first time, a total list of these and their dollar amounts. It will be an impressive figure.

6. PUBLIC RELATIONS. This year we have stressed public relations among ourselves, at all levels of the Auxiliary—county, state, and national—with the ISMA and in particular with the community in which we live and work.

As I tour the state I am increasingly aware of the diversity and quantity of health related concerns that the medical auxiliaries are involved in. There can be no better source of public relations than is afforded medicine by these image makers!

We are happy to be recognized as partners in the pursuit of good medical practice and have welcomed the opportunity you have extended to us this year to work more closely with you.

My sincere thanks to each of you for the warmth and many kindnesses you have shown me throughout the year.

CME QUIZ

Tay-Sachs Carrier Detection

CONTINUED FROM PAGES 251-254

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. Tay-Sachs Disease is associated with all of the following *except:*
   a. autosomal recessive inheritance
   b. Jewish ancestry
   c. cherry-red spot
   d. enzyme replacement therapy
   e. degenerative nervous system disorder
2. The purpose of carrier detection programs for Tay-Sachs Disease is to:
   a. identify carrier couples at risk after an affected child is born
   b. identify carrier couples at risk before an affected child is born
   c. eliminate the Tay-Sachs Disease gene
   d. of research interest only
   e. to offer therapy for an affected child
3. A young man related to you that his sister died of Tay-Sachs Disease. His chance of being a carrier is:
   a. 100%
   b. 67%
   c. 50%
   d. 25%
   e. 0%
4. A couple comes to you for prenatal counseling. The husband is Ashkenazi Jewish and the wife is not. The risk for the husband to be a carrier for Tay-Sachs Disease is:
   a. 1 in 300
   b. 1 in 100
   c. 1 in 50
   d. 1 in 29
   e. none
5. The risk for the wife in Question 4 to be a carrier for Tay-Sachs Disease is:
   a. 1 in 300
   b. 1 in 100
   c. 1 in 50
   d. 1 in 29
   e. none
6. The risk for parents of a child with Tay-Sachs Disease to have an affected child with their next pregnancy is:
   a. 1 in 100
   b. 1 in 29
   c. 1 in 4
   d. 1 in 2
   e. none
7. Sandhoff Disease can be distinguished from Tay-Sachs Disease by:
   a. age of onset
   b. urinalysis
   c. physical examination
   d. enzyme testing for Hexosaminidase isoenzymes
   e. cherry-red spot
8. Tay-Sachs Disease is associated with deficient enzyme activity of:
   a. Total Hexosaminidase
   b. Hexosaminidase A
   c. Hexosaminidase B
   d. Hexosaminidase A and B
   e. none of the above
9. Tay-Sachs Disease is associated with intraneuronal storage of:
   a. GM_1-ganglioside
   b. GM_2-ganglioside
   c. mucolipids
   d. mucopolysaccharide
   e. cholesterol
10. Children with Tay-Sachs Disease:
    a. have a near-normal life span
    b. have hepatosplenomegaly
    c. have normal developmental milestones
    d. expire between ages 3 to 5 years
    e. have the onset of seizures shortly after birth

February CME Quiz Answers

Following are the answers to the CME quiz that appeared in the February 1982 issue of THE JOURNAL: "Percutaneous Transluminal Coronary Artery Dilatation," by W. Scott Robertson, M.D., et al.

1. a	6. c.
2. a	7. d
3. d	8. d
4. d	9. c
5. a	10. d

Answer sheet for Quiz: (Tay-Sachs . . .)

1. a b c d e	6. a b c d e
2. a b c d e	7. a b c d e
3. a b c d e	8. a b c d e
4. a b c d e	9. a b c d e
5. a b c d e	10. a b c d e

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing lable)

Signature

To be eligible for this month's quiz, send your completed, signed application before May 10, 1982 to the address appearing at the top of this page.

Candidates for nutritional therapy...

10,000,000 alcoholics. Ethanol may produce many effects that together bring about nutritional deficiencies, so that alcoholism affects nutrition at many levels.[1]

25,500,000 geriatric patients. The older patient may have some disorder or socio-economic problem that can undermine good nutrition.[2]

23,500,000 surgical patients. Nutritional status can be compromised by the trauma of surgery; and some operations interfere with the ingestion, digestion and absorption of food.[3]



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Indications: Prophylactic or therapeutic nutritional supplementation in physiologically stressful conditions, including conditions causing depletion, or reduced absorption or bioavailability of essential vitamins and minerals; certain conditions resulting from severe B-vitamin or ascorbic acid deficiency; or conditions resulting in increased needs for essential vitamins and minerals.
Contraindications: Hypersensitivity to any component.
Warnings: Not for pernicious anemia or other megaloblastic anemias where vitamin B_{12} is deficient. Neurologic involvement may develop or progress, despite temporary remission of anemia, in patients with vitamin B_{12} deficiency who receive supplemental folic acid and who are inadequately treated with B_{12}.
Precautions: *General:* Certain conditions may require additional nutritional supplementation. During pregnancy, supplementation with vitamin D and calcium may be required. Not intended for treatment of severe specific deficiencies. *Information for the Patient:* Toxic reactions have been reported with injudicious use of certain vitamins and minerals. Urge patients to follow specific dosage instructions. Keep out of reach of children. *Drug and Treatment Interactions:* As little as 5 mg pyridoxine daily can decrease the efficacy of levodopa in the treatment of parkinsonism. Not recommended for patients undergoing such therapy.
Adverse Reactions: Adverse reactions have been reported with specific vitamins and

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5,000,000 hospital patients with infections.[4] Many are anorectic and may have a markedly reduced food intake. Supplements are often provided as a prudent measure because the vitamin status of critically ill patients cannot be readily determined.[3]

The incalculable millions on calorie-reduced diets. Patients ingesting 1000 or fewer calories per day could be at high risk because this intake may not supply most nutrients in adequate amounts without supplementation.[5]



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highly acceptable to patients, has virtually no odor or aftertaste and is economical. And its "Rx only" status means more physician involvement, better patient compliance.

References: 1. Shaw S, Lieber CS: Nutrition and alcoholism, chap. 40, in *Modern Nutrition in Health and Disease*, edited by Goodhart RS, Shils ME. Philadelphia, Lea & Febiger, 1980, pp. 1220, 1237. 2. Watkin DM: Nutrition for the aging and the aged, chap. 28, in *Modern Nutrition in Health and Disease, op. cit.*, p. 781. 3. Shils ME, Randall HT: Diet and nutrition in the care of the surgical patient, chap. 36, in *Modern Nutrition in Health and Disease, op. cit.*, pp. 1084, 1089, 1114. 4. Dixon RE: *Ann Intern Med 89* (Part 2): 749-753, Nov 1978. 5. Committee on Dietary Allowances, National Research Council: Recommended Dietary Allowances, ed 9. Washington, National Academy of Sciences, 1980, p. 13.

minerals, but generally at levels substantially higher than those in Berocca Plus. However, allergic and idiosyncratic reactions are possible at lower levels. Iron, even at the usual recommended levels, has been associated with gastrointestinal intolerance in some patients.

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FUTURE FILE

Conference on Breast Cancer

"The Cincinnati Conference on Cancer—Breast Cancer" will be conducted Nov. 5-6 at the Westin Hotel, at Fountain Square, Cincinnati. Program is designed for oncologists, primary care physicians and radiation therapists. The sponsor is Bethesda Hospital & Deaconess Association. The registration fee is $145, with 50% discount for residents in training. Address Thomas J. O'Connor, 619 Oak St., Cincinnati 45206.

Kentucky OB-GYN Update

The Eleventh Update in OB-GYN will be conducted June 2-4 at the Hyatt Regency Hotel, Lexington, Ky. The course is accredited under Category 1. Write to Frank R. Lemon, M.D., College of Medicine, Lexington, Ky. 40536.

Hyperbaric Oxygen Conference

The 7th Annual Conference on the Clinical Application of Hyperbaric Oxygen will be held June 9-11 at the Disneyland Hotel, Anaheim, California. For full info, write to Baromedical Department, Memorial Hospital Medical Center, 2801 Atlantic Ave., Long Beach, Calif. 90801, or phone (213) 595-3613.

Are You Moving?

If so, please send change of address to Membership Dept., ISMA, 3935 N. Meridian St., Indianapolis, IN 46208, at least six weeks before you move.

Name _____

Address _____

City _____ **State** _____ **Zip** _____

County _____

IMPORTANT — Attach mailing label from your last Journal here.

Desert Medical Classic

The Palm Springs 1982 Desert Medical Classic will be conducted May 9-13. This will be the 15th annual combination of medical seminars, golf and tennis competition, together with social events. Scientific meetings with CME credit up to 16 hours in Category 1 will occupy the mornings. Four rounds of medal play, Monday through Thursday, are scheduled on the Springs' famous golf courses. A separate program for ladies featuring a 54-hole, three-day event is planned. Golf will be flighted according to handicaps. For more info write DMC-1982, P.O. Box 183, Alton, Ill. 62002.

North Carolina Postgrad Course

"Diagnostic Imaging Postgraduate Course" will be held July 26-30 at Atlantic Beach, N.C., by Duke University Medical Center. Fee is $375 ($200 for trainees if accompanied by a letter from department chairman). The course is designed for radiologists but is open to other physicians. Category 1-25 hours. Write Donald R. Kirks, M.D., Box 3834, Duke University Medical Center, Durham, N.C. 27710.

Cardiac Lecture in Louisville

The third annual Kareem B. Minhas Memorial Lectureship will be held at noon, Wednesday, April 21, at the University of Louisville School of Medicine. The lecturer will be William J. Rashkind, M.D. His topic will be "Treatment of Congenital Heart Disease with Cardiac Catheters: Balloons, Umbrellas, and Boiler Plugs."

Child Care Conference

The 17th annual Indiana Multidisciplinary Child Care Conference will be held at the Hyatt-Regency Hotel in Indianapolis, May 19 and 20.

The speakers and subjects will include: David Carver, M.D.—Pediatric Infectious Disease—Parts I & II; Gerald Golden, M.D.—Child Development and Neurology—Parts I and II; Elizabeth McAnarney, M.D.—Adolescent Health—Parts I & II; Barton Schmidt, M.D.—Ambulatory Problems in Pediatrics—Parts I & II; Richard Schreiner, M.D.—Neonatology—Parts I & II; and the banquet speaker, Richard Goldbloom, M.D.

For further information, contact Morris Green, M.D., Indiana University School of Medicine, 1100 W. Michigan St., Indianapolis, Ind. 46223.

Family Medicine Review

The Thirteenth Family Medicine Review—Session II will be held May 23-28 at the Hyatt Regency Hotel, Lexington, Ky. The reference is Frank R. Lemon, M.D., College of Medicine, Lexington, Ky. 40536.

Indiana AAPS Dinner Meeting

The Indiana Chapter of the Association of American Physicians and Surgeons will conduct its spring dinner meeting April 24 at Heritage House Smorgasbord, 4990 US 31 South, Indianapolis. Dr. Richard Blair will speak at 7 p.m. Business meeting at 4:30 p.m., dinner at 6 p.m. No reservations are needed, and all physicians and spouses are invited to attend.

Kidney Disease Update

"Kidney Disease Update" will be the subject of a CME conference at Bethesda Hospital, Cincinnati, Oct. 29-30. The course carries 10 hours of Category 1 credit, and is oriented to primary care physicians. Write to Thomas J. O'Connor, 619 Oak St., Cincinnati 45206.

Breast Cancer Conference

"Breast Cancer" will be the subject of an all-day conference to be conducted April 15 as a portion of the CME program of Reid Memorial Hospital, Richmond, Ind. Full details and a program may be obtained by writing the hospital at 1401 Chester Blvd., 47374, or by phoning (317) 962-4545.

ACS National Conference

"The Primary Care Physician and Cancer" is the subject of a National Conference to be conducted by the American Cancer Society at the Hyatt Regency Washington on Capitol Hill, Washington, D.C., June 24-26. The meeting is qualified for 17.5 hours of credit with the AMA and the AAFP. The correspondent is Nicholas G. Bottiglieri, M.D., 777 Third Ave., New York City 10017.

Clinical Neurology Symposium

The fifth annual Symposium on Contemporary Clinical Neurology sponsored by Vanderbilt University will be held July 27-31 at the Palmetto Dunes Hyatt Resort, Hilton Head Island. For info write to Joan Sullivan, Department of Neurology, Vanderbilt University School of Medicine, Nashville, Tenn. 37212.

Sports Medicine Conference

Purdue University, Indiana University School of Medicine and the Lafayette Center for Medical Education will present their annual sports Medicine Conference for coaches, trainers, and physicians April 15 at West Lafayette, Indiana.

Please contact the Continuing Education Business office, Purdue University (317) 494-7221, for further details.

Milwaukee Postgrad Course

The Medical College of Wisconsin will hold its 15th Annual Postgraduate Course in Gynecological Pathology, Cytogenetics and Endocrinology from June 17 to 23, 1982 at the Pfister Hotel and Tower, Milwaukee. Limited to 150 registrants. The $500 enrollment fee, which includes 68 selected 35mm slides, is non-refundable. CME rating is 42 hours credit with AMA and AAFP.

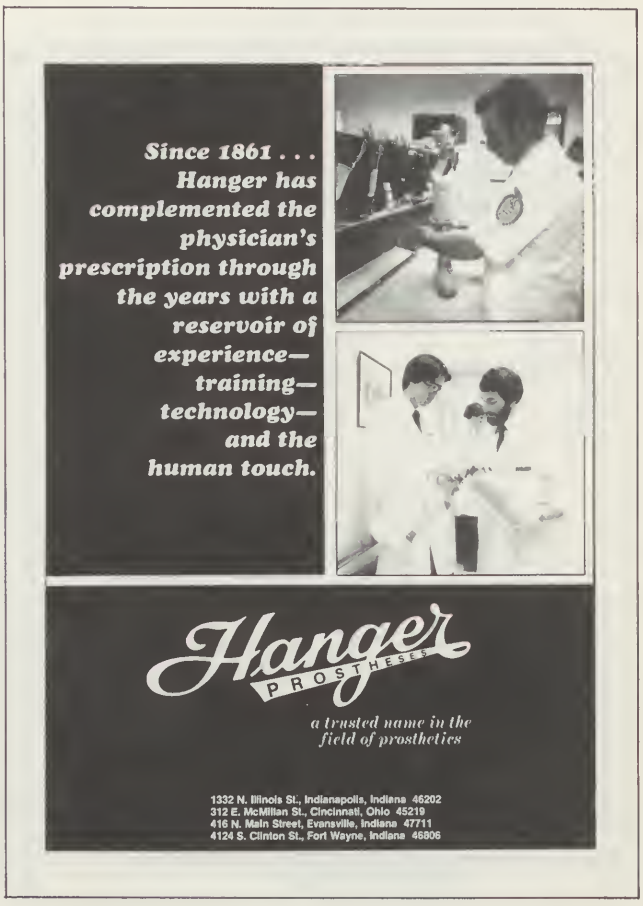
Write to Richard F. Mattingly, M.D., 8700 W. Wisconsin Ave., Milwaukee 53226.

Internal Medicine Review

"An Intensive Review of Internal Medicine" will be conducted Aug. 16-21 by Jefferson Medical College and the University of Delaware on the Newark Campus of the University of Delaware.

The course carries 55 hours of Category 1 AMA credit and is designed for contemporary review and for those physicians who contemplate writing the American Board of Internal Medicine Certifying Examination.

Write Sylvia Brocka, 2800 Pennsylvania Ave., Wilmington, Del. 19806 or call (302) 738-8151.



NEWS NOTES

M.D. Registration Fee Due Soon

The biennial registration fee for all licensed Indiana physicians is due in the office of the Medical Licensing Board of Indiana by July 1, 1982. The fee for two years registration is $40, payable by check or money order. A penalty fee of $20 will be added if the renewal fee is not paid by Aug. 31.

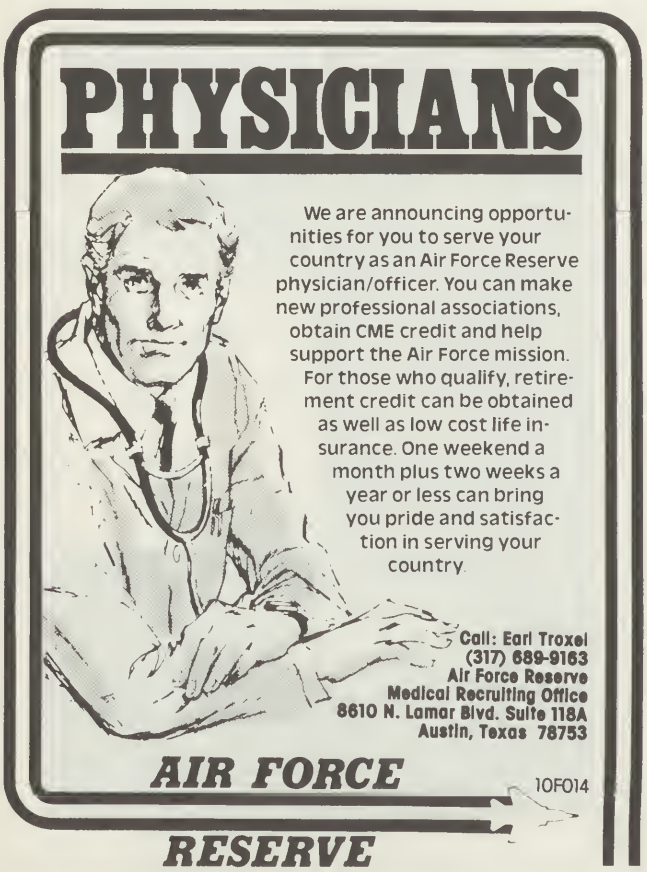
The Board will mail renewal notices to physicians beginning May 25. However, physicians whose addresses have changed within the past two years probably will not receive notices; the requirement to pay the fee, however, remains unchanged.

Fees should be mailed directly to the Medical Licensing Board of Indiana, 700 N. High School Road, Indianapolis, Ind. 46224. Tel: (317) 232-1118.

Physician Placement Guides

Two AMA publications, the Opportunity Placement Register (OPR) and the Physician Placement Register (PPR), are now being published bimonthly. Previously, both were published quarterly.

The OPR lists practice opportunities and is primarily indexed by state and then specialty. The PPR's primary index is by specialty and then type of practice sought. Physicians looking for jobs receive the OPR; the PPR is sent to opportunity contacts.



Long-Term Care Project Requires Input from Physicians

Is nursing home placement *always* the most appropriate use of human and financial resources?

What "type" of patients could be adequately served by in-home services?

Which service, or mix of services, is key for in-home support?

What role do family, neighbors, and friends play in helping a person remain in the community?

These are the questions currently being addressed by the Indiana Community Long-Term Care Demonstration Project.

The Project is geared to determine to what extent it is feasible to maintain older Hoosiers in their homes rather than in nursing homes. With a focus on identifying and tracking the multiple costs associated with in-home care, the Project presented to the 1982 Indiana Legislature data regarding the viability of various alternatives to Nursing Home placement. For comparison purposes, the Project has both urban (Marion County) and rural (White, Montgomery, and Tippecanoe Counties) demonstration sites.

Physician input is important in verifying the eligibility of their particular patients within Project guidelines. In order to comply with legislative mandate (Indiana PL 223), a Physician's Verification must be signed by the patient's personal physician and is a means by which to focus reporting data on truly the *most* needy—that is, persons who would be institutionalized if it were not for the in-home services being received.

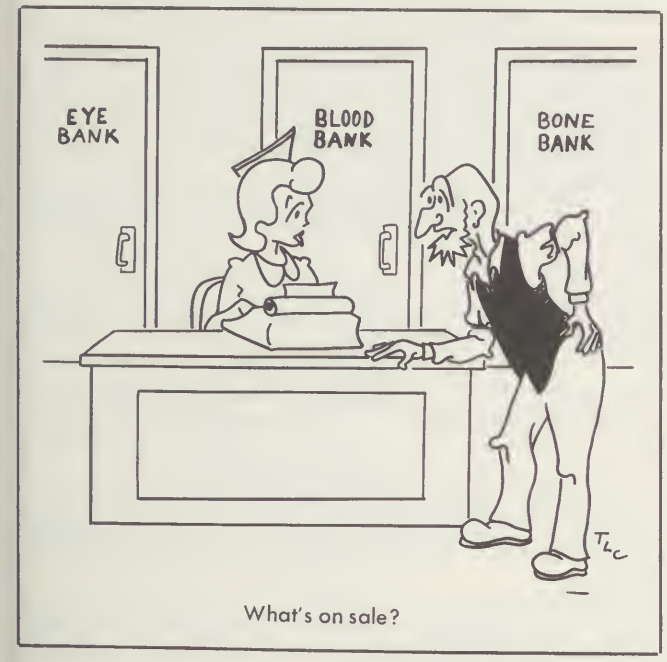
Identification of potential Long-Term Care clients is most often done through providers of in-home services, but referrals from family and physicians are welcome.

For further information, call Christopher V. Morse, project director, at (317) 633-6191.

Good and Bad News for Dieters

The American Council on Science and Health reports on a study of current magazine content to rate the accuracy of dietary information. The verdict was that most magazines, particularly women's magazines, give inaccurate nutrition advice.

High ratings went to *50 Plus, Parents, Redbook, Reader's Digest,* and *Good Housekeeping.* The other end of the line contained *Prevention, Organic Gardening, Harper's Bazaar, Cosmopolitan, Essence,* and *Mademoiselle.* Eight others, *Glamour, Vogue, Woman's Day, Ms, Seventeen, Family Circle, McCall's* and *Ladies' Home Journal,* fell in between the two extremes but were inconsistent, according to the ACSH.



What's on sale?

Patient Medication Instructions

An AMA program to provide patients—through their physicians—with written information about prescription drugs will be in operation by mid-year. The first series of Patient Medication Instructions (PMIs), designed to supplement the physician's oral instructions, will cover 10 widely prescribed drugs. Eventually, as many as 200 medications are expected to be included in the voluntary program.

Single-sheet PMIs on a given drug will be bound into pads and will be available for purchase by physicians. A collection of the various PMIs will be made available to physicians who prefer to reproduce them. The scientific basis for the PMIs will be the authoritative compendium, *AMA Drug Evaluations,* prepared by the AMA Department of Drugs in cooperation with the American Society for Clinical Pharmacology and Therapeutics.

Repeal of Optometry Legislation

The American Academy of Ophthalmology has called for repeal of legislation that provides Medicare reimbursement to optometrists for services provided to patients who have had cataracts removed.

An actuarial study indicates that such benefits will cost Medicare $36.5 million in a four-year period (1982 through 1985). The Academy points out that $18.1 million represents duplication of services already covered in the opthalmologist's surgical fees.

Concern is expressed for the patients who develop complications such as retinal detachment and glaucoma, which only physicians are trained to handle.

POW Health Care Benefits

Advice on the new VA benefits for American former prisoners of war will be supplied by an advisory committee just appointed by Administrator Robert P. Nimmo. Nine former POWs, including Lt. General John P. Flynn as chairman, and five medical experts will aid in administering benefits as conferred by Public Law 97-37, "Prisoners of War Health Care Benefits Act of 1981." The law broadens VA's authority to provide health care for former POWs and liberalizes rules for determining whether certain medical conditions can be considered service-connected.

American Legion Cites Dr. Bowen

Dr. Otis R. Bowen, former governor of Indiana, is the recipient of the 1982 Distinguished Citizen Award, presented by the American Legion's Eleventh District of Indiana.

Dr. Bowen, cited during an Award Dinner in February, was presented the award by Charles Boehm, past commander, Department of Indiana American Legion.

The award, initiated in 1956, is presented annually to honor a resident of Marion County who has performed an outstanding service to his or her community, state or nation.

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NEWS NOTES

Here and There . . .

. . . **Dr. Philip R. Myers** has been elected president of the medical staff, South Bend Memorial Hospital; **Dr. John O. Hildebrand** was elected vice-president and **Dr. Dean L. Strycker,** secretary-treasurer.

. . . **Dr. Richard M. Knapek** of Indianapolis discussed colostomy and ileostomy during a January meeting of the United Ostomy Association, Indianapolis Chapter.

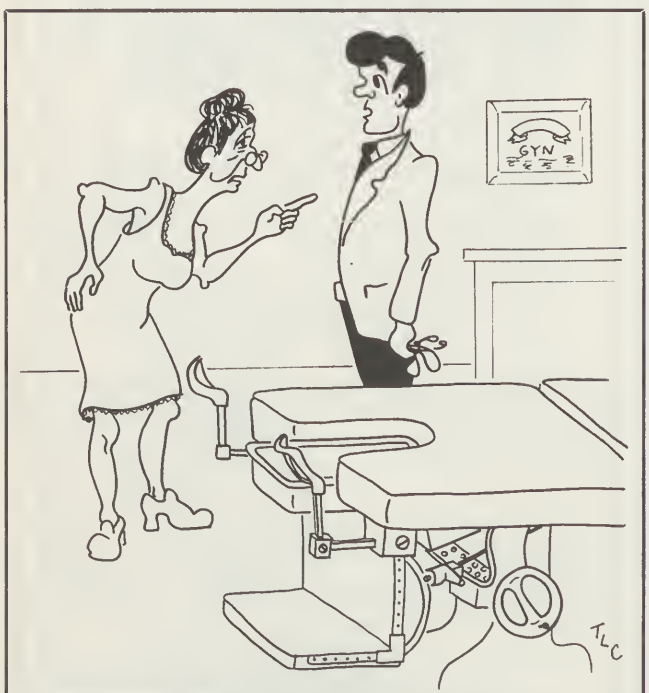
. . . **Dr. James F. Peck** has been elected president of the medical staff, Gibson General Hospital, Princeton; **Dr. William R. Wells** was elected vice-president and **Dr. Robert K. Foley,** secretary-treasurer.

. . . **Dr. John T. Emhardt,** an Indianapolis physician since 1930, has retired. He holds emeritus status on the staff of Methodist Hospital and was awarded Indiana University emeritus status in 1978.

. . . **Dr. Betty Jean Campbell** of Terre Haute has been named a Fellow of the American Academy of Pediatrics.

. . . **Dr. Paul R. Honan** of Lebanon has been elected president of the Contact Lens Association of Ophthalmologists. He is the founder and director of the Contact Lens Clinic, Department of Ophthalmology, Indiana University School of Medicine.

. . . **Dr. A. Alan Fischer** of Indianapolis discussed geriatric problems during a January program at Golden Manor Health Care Center, Brownsburg.



Young man, does your mother know what you do for a living?

. . . **Dr. Kyung J. Ahn** of Munster has been elected president of the medical staff, Our Lady of Mercy Hospital, Dyer. He was recently elected national president of the Korean Medical Society. Other hospital staff officers are **Dr. Nicholas Egnatz,** president-elect, and **Dr. Michael S. Larson,** treasurer.

. . . **Dr. Steven R. Gable,** a South Bend neurologist, addressed the Stroke Club of St. Joseph County in January.

. . . **Dr. Henry C. Bock** has been named medical director at the Indianapolis Motor Speedway, succeeding the late **Dr. Thomas A. Hanna.**

. . . **Dr. Louis F. Romain** of Fort Wayne, an award-winning photographer, served as a judge during February's Richmond Photographic Society-Art Association of Richmond photo competition.

. . . **Drs. Robert T. Clayton, Philip H. Ireland** and **William B. Kleinman,** Indianapolis, have been inducted as Fellows of the American Academy of Orthopaedic Surgeons.

. . . **Dr. Steven M. Meyer** of South Bend discussed retinopathy during a January meeting of the South Bend Diabetes Association.

. . . **Dr. Arun K. Goel** has been elected president of the medical staff, St. Mary Medical Center, Gary; **Dr. John O. Carter** was elected vice-president, **Dr. Nazzal Obaid,** secretary, and **Dr. M. U. Pargaonker,** treasurer.

. . . **Dr. Stephen R. Ash,** a Lafayette nephrologist, has been named a Fellow of the American College of Physicians.

. . . **Dr. A. D. Holliday,** a Gary general surgeon, has been named Police Surgeon for the Gary Police Department.

. . . **Dr. Elaine P. Habig,** a Lebanon internist, discussed cardiac rehabilitation during a January meeting of the Lebanon Rotary Club.

Dr. Grosfeld Named to Professorship

Dr. Jay L. Grosfeld, Indianapolis, professor and director of the Section of Pediatric Surgery at I. U. School of Medicine and surgeon-in-chief at the Riley Hospital has been named the first Lafayette Page professor of pediatrics. Dr. Grosfeld has headed the Riley Hospital Section of Pediatric Surgery for the past 10 years.

(Dr. Page was a distinguished surgeon and practiced the specialty of ear, nose and throat for many years in Indianapolis. He was famous for having devised a system of treatment for the effects of poisonous warfare gases during WWI while he served with the Lilly Base Hospital in France. He was one of the first and also the most active proponents for the building of Riley Hospital as a living memorial to James Whitcomb Riley. Dr. Page's daughter, Ruth, became a famous exponent of the modern dance. His son, Irvine, is now equally famous for his research in cardiovascular diseases.)

. . . **Dr. Neil J. Stalker** of Peru has been named a Fellow of the American Academy of Pediatrics. He is director of pediatrics at Dukes Memorial Hospital.

. . . The American College of Radiology has announced these new members: **Dr. Deepchand Bajpai,** Fort Wayne; **Dr. Thomas A. Bowers,** South Bend; **Dr. Mervyn D. Cohen,** Indianapolis; **Dr. Mary K. Edwards,** Danville; **Dr. John C. Lappas,** Indianapolis; and **Dr. Robert D. Slabaugh,** Mishawaka.

. . . **Dr. Bharam Sepehri** of New Albany has been named a Fellow of the American Academy of Pediatrics. He is chief of pediatrics at Memorial Hospital, New Albany.

. . . **Dr. Honesto K. Fenol, Jr.** of Petersburg has been named a diplomate of the American Academy of Family Physicians.

. . . **Dr. Lawrence E. Benham** has been elected chief of staff, Dunn Memorial Hospital, Bedford; **Dr. Gareth A. Morgan** was elected chief of staff-elect and **Dr. Steven M. Barlow,** secretary-treasurer.

. . . **Dr. Donna A. Wilkins** of Muncie has been named a Fellow of the American Academy of Pediatrics. She is director of nurseries at Ball Memorial Hospital, Muncie.

. . . New Fellows of the American College of Chest Physicians include **Dr. Adel H. Ayoub** of Valparaiso, **Dr. Mason R. Goodman** of Indianapolis, **Dr. Paul F. Howard** of South Bend, and **Dr. Vernon A. Vix** of Indianapolis.

. . . **Dr. Mary D. Carroll** of Crown Point has been elected president of the Lake County Medical Society. She is the first woman physician ever elected to the presidency since the Society was founded in 1898.



FIRST THE GOOD NEWS.
YOUR RIGHT LUNG AND LEFT KIDNEY ARE IN GREAT SHAPE.

ADD A SILLY LITTLE METER . . .

RICHARD J. NOVEROSKE, M.D.
Evansville

The other night I watched a supposedly scientific program on television and listened to one of the narrators say, "Einstein's discovery of the theory of relativity smashed classical physics."

Nonsense.

This idea is bandied about commonly, but it's still nonsense.

If you take the equation for classical physics, $F = ma$, and multiply both sides of the equation by a unit of distance—for example a meter on each side of the equation—something we learn to do in high school algebra—the result is the units for the Einstein equation: $E = mc^2$.

Watch: Force = mass × acceleration

$$\text{Force} = \text{kilograms} \times \frac{\text{meters}}{\text{second}^2}$$

Multiply by a meter

$$\text{Force} \times \text{meter} = \text{kilogram} \times \frac{\text{meters}}{\text{second}^2} \times \text{meter}$$

Force through a distance is work or energy

$$\text{Energy in joules} = \text{kilograms} \times \left(\frac{\text{meters}}{\text{second}}\right)^2$$

So we have the units for the $E=mc^2$ equation just by multiplying both sides of the equation by a meter. And we didn't destroy classical physics in the process. We just added a dimension to it. Surely Einstein saw this simple manipulation.

But how did he figure out that the numbers for the $\left(\frac{\text{meters}}{\text{second}}\right)^2$ should be about 300 million, i.e., that it was the velocity of light, about 300 megameters per second, that was the squared value for multiplying the mass to get the product of the energy present in the mass.

That was genius!

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Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

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OBITUARIES

Morris D. Wertenberger, M.D.

Dr. Wertenberger, 77, a retired Richmond radiologist, died Nov. 14, 1981.

He was a 1928 graduate of the University of Michigan Medical School.

Dr. Wertenberger, who was enrolled in the ISMA Fifty Year Club in 1978, was a Fellow of the American College of Radiology and was certified by the American Board of Radiology.

James E. Jobes, M.D.

Dr. Jobes, 79, a member of the Methodist Hospital staff, died Jan. 7 in St. Vincent Hospital, Indianapolis.

He was a 1929 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Jobes, a specialist in Industrial Medicine, received a certificate of appreciation from President Nixon in 1972 for participation in the Selective Service System. His work in Industrial Medicine included affiliations with Greyhound Bus Lines, L.S. Ayres & Co., Link Belt Division of FMC, Malleable Iron and Steel Casting Co., and Kingan Co. He became a member of the ISMA Fifty Year Club in 1979.

Memorials

Indiana Medical Foundation

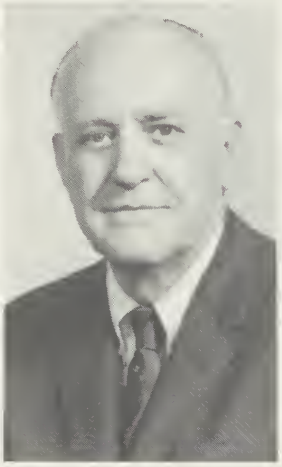
The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

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The Foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

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Mrs. Beth Bowen
James O. Ritchey, M.D.
Thomas A. Hanna, M.D.

Samuel R. Mercer, M.D.



Dr. Mercer, 79, a Fort Wayne dermatologist, died Feb. 16 at Parkview Memorial Hospital, Fort Wayne.

Dr. Mercer was a member of THE JOURNAL's Editorial Board from 1954 to 1962 and served as a Consulting Editor of THE JOURNAL from 1964 until his death.

He was a 1928 graduate of the University of Pittsburgh School of Medicine. He began his private practice in Fort Wayne in 1937 and was clinic director for the Fort Wayne Board of Public Health in charge of the communicable disease control clinic for more than 30 years.

He was a Fellow of the American College of Physicians and a diplomate of the American Board of Dermatology. He was enrolled in the ISMA Fifty Year Club in 1978.

Abraham B. Ginsherman, M.D.

Dr. Ginsherman, 76, a retired New Albany general practitioner, died Dec. 1, 1981.

He was a 1926 graduate of McGill University Faculty of Medicine, Montreal.

Dr. Ginsherman became a member of the ISMA Fifty Year Club in 1976 and was a member of the American Physicians Fellowship.

Paul W. Blossom, M.D.

Dr. Blossom, 78, a retired Richmond general practitioner, died Feb. 15 in Arizona.

He earned his M.D. degree in 1928 from the University of Cincinnati. He retired from practice in 1980.

Dr. Blossom was a member of the American Academy of Family Physicians and the Industrial Medical Association. He was enrolled in the ISMA Fifty Year Club in 1978.

Kenneth I. Sheek, M.D.

Dr. Sheek, 69, a Greenwood general practitioner, died Feb. 11 at St. Vincent Hospital, Indianapolis.

He was a 1937 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Sheek was a member of the American Academy of Family Physicians.

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FOR LEASE: Office adjocent ta hospitol in growing medicol community. Additions to 350-bed hospitol ond mental heolth unit naw under construction. Reody for accupancy early in 1982. Address inquiries to N. M. Welch, M.D., R.R. 3, Box 17, Vincennes, Ind. 47591.

WHAT'S NEW?

CONTINUED FROM PAGE 226

MEAD JOHNSON has received FDA clearance for marketing a new, chemically unique antidepressant, Desyrel® (trazodone hydrochloride). It is chemically unrelated to the tricyclic and tetracyclic antidepressants. Clinical trials showed safety, effectiveness and a low propensity for side effects.

HEWLETT-PACKARD announces three new Hemo Carts. The carts differ to conform to varying monitoring needs. Each style is mobile and is especially suitable for use in hospital locations that do not justify permanently installed equipment. They are identified as Hemodynamics Carts I, II, and III and may be used to supplement existing equipment or to create a completely monitored critical-care bed.

INTERPHARM LABORATORIES of Israel has begun clinical trials to determine the effectiveness of its human fibroblast interferon drug, Frone®, against genital and labial herpes.

VAN NOSTRAND REINHOLD has released *Pregnancy in Adolescence: Needs, Problems and Management*. Editors are Irving Stuart, Ph.D., and Carl F. Wells, Ph.D. It is written for all professionals involved with the repercussions of adolescent pregnancy. Its contributors were each selected for clinical expertise. Each focuses on the salient problems as well as solutions. 480 pages, $26.50.

Computers for Medical Office and Patient Management is a new book edited by Stacey B. Day, M.D. It explains use of computers in compiling health, disease and environmental data. It also discusses means of lowering cost of medical care and improving communication. Advice for those who contemplate purchasing a computer is included. 224 pages, 25 illustrations, $19.95.

DAVOL is introducing System 5000, the first isolated, solid state generator for electrosurgical procedures. It has true Bovie®-like fulguration. Also full monopolar capabilities for precise control and pinpoint coagulation, as well as bipolar capability.

DOUBLEDAY has released *Whitmer's Guide to Total Wellness* by R. William Whitmer, a participant in the health field for 25 years and executive director of Wellness Centers of America. The book is described as offering visualization techniques for a better, healthier, and longer life. It is written to complement the fact that most people want to assume greater responsibility for their own health but don't know how. 264 pages, $14.95.

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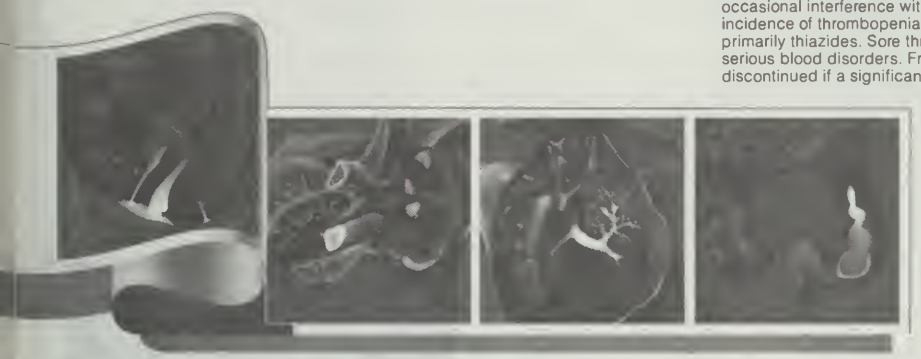
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For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

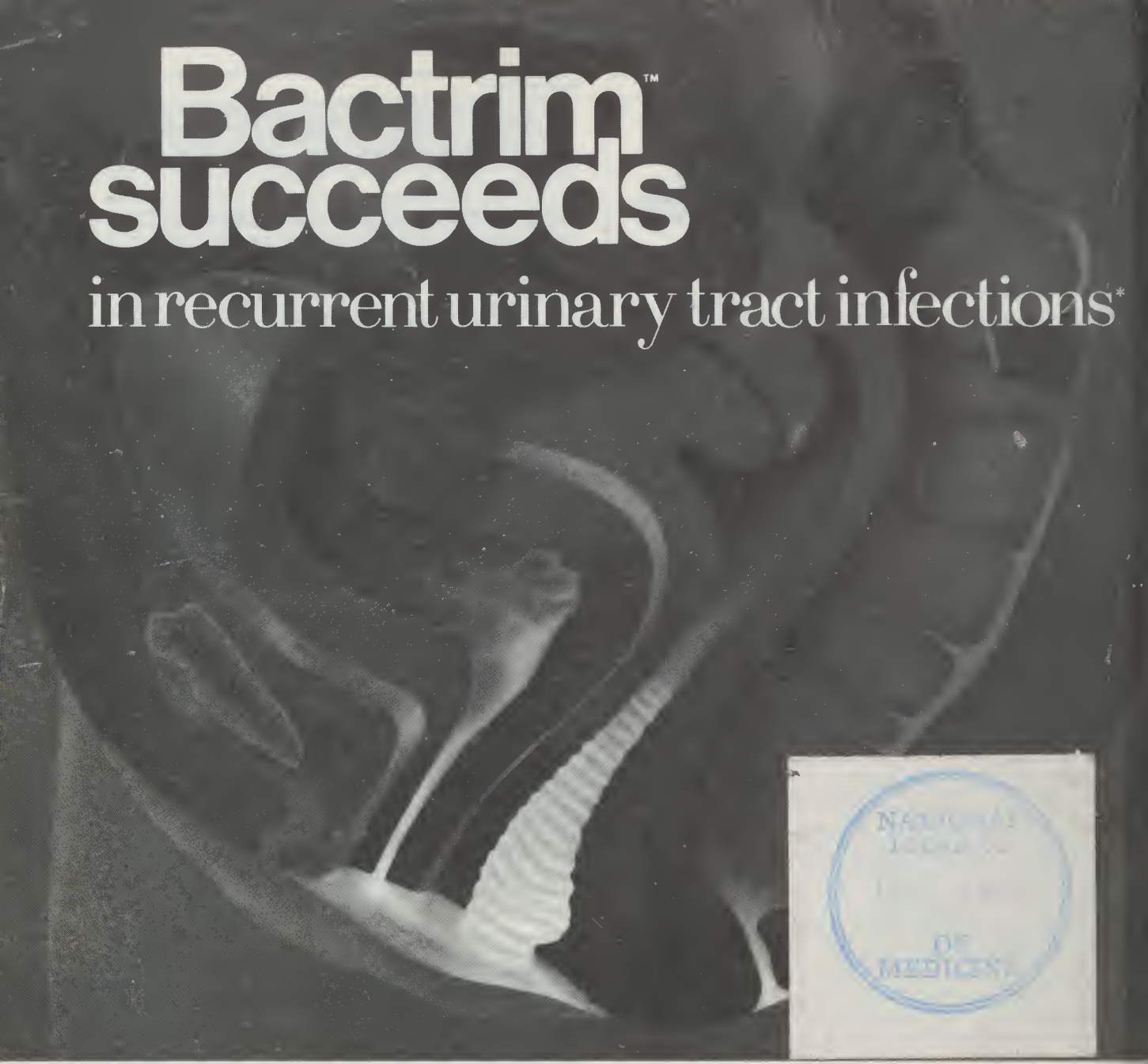
Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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Bactrim™ succeeds

in recurrent urinary tract infections*



from site to source

Bactrim continues to demonstrate high clinical effectiveness in recurrent urinary tract infections. Bactrim reaches effective levels in urine, serum, and renal tissue[1]...the trimethoprim component diffuses into vaginal secretions in bactericidal concentrations[1]... and in the fecal flora, Bactrim effectively suppresses Enterobacteriaceae[1,2] with little resulting emergence of resistant organisms.

1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

Bactrim™ DS

160 mg trimethoprim and 800 mg sulfamethoxazole

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maximizes results with B.I.D. convenience

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May 1982 • Vol.75 • No.5

The JOURNAL of the INDIANA STATE MEDICAL ASSOCIATION

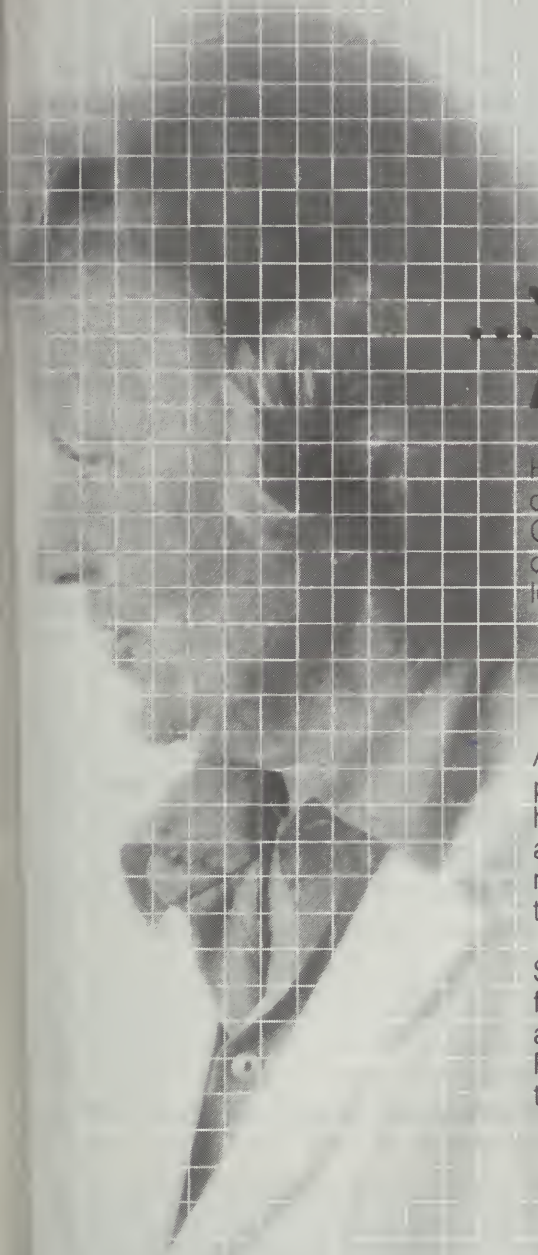


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LIVES UP IN SMOKE
What Can Physicians Do?

THE PATIENT THINKS HE HAS HEART TROUBLE...





...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

For rapid relief you prescribe Valium (diazepam/Roche)

At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

VALIUM® (IV)
diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

BECAUSE YOU'RE CONVINCED THE PATIENT NEEDS IT

ROCHE®

Please see summary of product information on the following page.

VALIUM®(diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
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WHAT'S NEW?

WALLACH SURGICAL DEVICES has a new cryosurgical instrument called the Wallach Freezer for use by physicians in gynecological, general and family practices. It consists of a lightweight freezer linked by a flexible tubing to a gas cylinder. It has two triggers, one for freezing, the other for defrosting.

JOHNSON & JOHNSON is marketing DEBRISAN® Wound Cleaning Beads, small, highly hydrophilic, dextranomer spheres used in the cleaning of wet ulcers and wounds. Each sphere absorbs about four times its weight in water. As the beads swell and absorb, they develop a wicking effect through hydrophilic and capillary action. There is no debriding effect; the action is purely mechanical.

THE 3M COMPANY is introducing a monitor that measures concentrations of ethylene oxide over a workshift of eight hours or less. The 3M brand Ethylene Oxide Monitor No. 3550 is a badge assembly designed to be worn on the lapel of workers exposed to ethylene oxide vapors in areas such as reprocessing rooms.

JOHNSON & JOHNSON has introduced BIOCLUSIVE™ Transparent Dressing, a sterile, adhesive coated film dressing for I.V. sites, hyperalimentation sites, superficial ulcers and skin graft donor sites. It also may be used to protect skin around a stoma. The transparent film allows continuous monitoring of the wound or venipuncture without lifting or removing the dressing.

ROCHE is introducing Valrelease™ (diazepam). Valrelease is a 15 mg sustained-release dosage form of Valium® formulated for once-a-day administration. It is the result of a new patented pharmaceutical delivery system called the hydrodynamically-balanced system (HBS™).

DU PONT announces a new blood-culture system, which has demonstrated by three years of hospital testing an ability to detect up to 20% more true positives, 12 to 24 hours sooner than the conventional two-bottle broth method. It is called "Isolator." The blood is drawn in the Isolator tube, the red cells are lysed and the sample is centifuged. Bacteria and fungi are concentrated and plated directly on agar plates. Isolation of the pathogen can take as long as six days but the average time is only one and a half days.

CONTINUED ON PAGE 360

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

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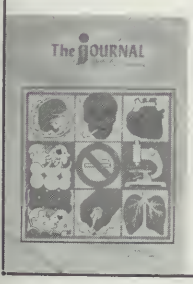
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ABOUT THE COVER

Our cover emphasizes the ill effects of cigarette smoking, a long-time concern of health professionals, including the American Lung Association and other voluntary health organizations. It serves to introduce two articles in our scientific section that deal with smoking—one prepared by an oncologist, the other by a general internist.

—COVER BY FRED KINGHORN AND BETTY CAPARO

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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis



The Old Pathology Building stands on ground that was originally owned by George Smith (owner of the first Indianapolis newspaper, *The Indianapolis Gazette,* 1821), his stepson Nathaniel Bolton (editor of the paper, and later envoy to Switzerland), and Nathaniel's wife Sarah (Indiana's pioneer poet laureate).

The Boltons maintained an inn on this land, which they also farmed—about 160 acres.

The Boltons sold their land to Dr. John Evans who, as agent for the State of Indiana, selected their property to be the site of the first State Hospital.

The poetry of Sarah Bolton is not generally known by the present generation. Her themes commonly are sad, and are based on the evil influences that were responsible for the tragedies of her time—illness, alcohol, war, and so forth.

A present-day literary society, known as the Poet's Corner, has been in existence since World War II. Among the other social and literary activities of this group is the preservation of the personal mementoes of Sarah Bolton. Mr. Clifford E. Hayes, a member of this group, has done extensive research regarding Sarah Bolton, and from him the Museum recently received three books of her poetry: *Poems by Sarah T. Bolton* (New York, Carleton, Publisher, 413 Broadway, 1865); *The Life and Poems of Sarah T. Bolton* (Indianapolis, Fred L. Horton and Company, 1880); and *Songs of a Lifetime,* Sarah T. Bolton (Indianapolis, Bobbs-Merrill, 1892).

These books are now on the walnut table in the poet's corner of the Museum. To this corner the literary club, the Poet's Corner, has recently placed on indefinite loan other items of Sarah Bolton, including her bible and bible stand.

An example of Sarah Bolton's poetry is "Left on the Battle-Field," which was published in 1863:

THE POET'S CORNER

WHAT, was it a dream? am I all alone
In the dreary night and the drizzling rain?
Hist!—ah, it was only the river's moan;
They have left me behind, with the mangled slain.

Yes, now I remember it all too well!
We met from the battling ranks apart;
Together our weapons flashed and fell,
And Mine was sheathed in his quivering heart.

In the cypress gloom, where the deed was done,
It was all too dark to see his face;
But I heard his death-groans, one by one,
And he holds me still in a cold embrace.

He spoke but once, and I could not hear
The words he said for the cannon's roar;
But my heart grew cold with a deadly fear:
O God! I had heard that voice before!

Had heard it before at our mother's knee,
When we lisped the words of our evening prayer!—
My brother! would I had died for thee!
This burden is more than my soul can bear!

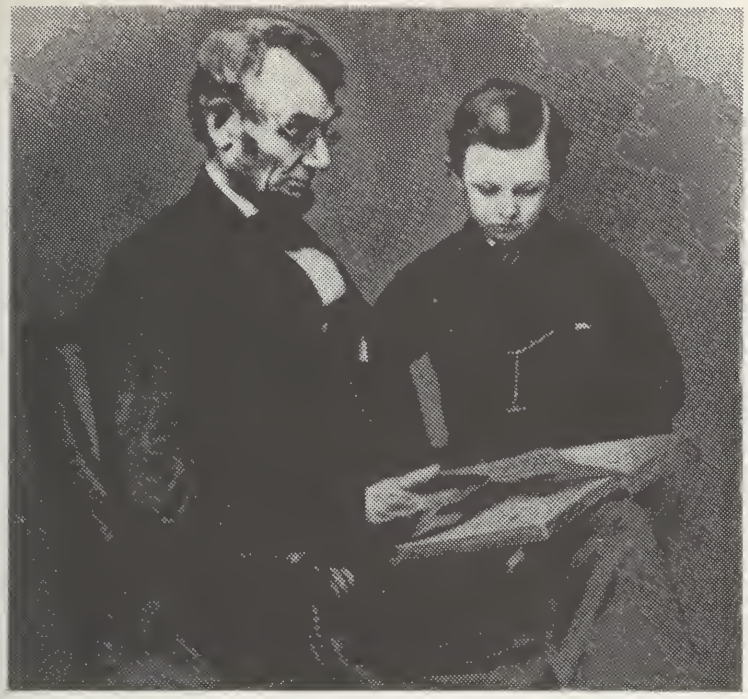
I pressed my lips to his death-cold cheek,
And begged him to show me, by word or sign,
That he knew and forgave me; he could not speak,
But he nestled his poor, cold face to mine.

The blood flowed fast from my wounded side,
And then for a while I forgot my pain,
And over the lakelet we seemed to glide
In our little boat, two boys again.

And then, in my dream, we stood alone
On a forest path where the shadows fell;
And I heard again the tremulous tone
And the tender words of his last farewell.

But that parting was years, long years ago:
He wandered away to a foreign land,
And our dear old mother will never know
That he died to-night by his brother's hand.

The soldiers, who buried the dead away,
Disturbed not the clasp of that last embrace,
But laid them to sleep till the judgment-day,
Heart folded to heart, and face to face.



If you recognize Tad's father, you'll recognize the name of one of the largest life insurance companies in America.

Lincoln. It's a name you'll remember.

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EDITORIALS

Salt and Hypertension

The causal relationship between sodium and hypertension becomes more definitely established with the passage of time. The study of dietary habits is now producing some valuable suggestions for the prevention of hypertension.

The results of a long-term survey of infant nutrition was published in the March issue of *Journal of the American Dietetic Association.*

The study revealed that milk and milk products alone provide enough sodium to meet the recommended level of intake for infants up to 18 months of age. However, after 18 months the infant is usually fed, in addition to milk, home-prepared foods made especially for the child or is fed some of the food that is prepared for the entire family. In both instances salt is usually added to please adult taste.

The recommendation offered was to restrict salt intake to children either by preparing food separately or by restricting salt in preparation of food for the family.

Appetite for salt is an acquired taste. Children who are reared on a restricted salt diet and who are cautioned to avoid high salt intake in later life will enjoy food that is low in salt (appetizing to them but repugnant to adults who are habituated to highly salted food.)

Both hereditary and environmental factors are cited for the causation of circulatory hypertension. Studies show that children are at greater risk when there is a family history of hypertension. Possibly the familial factor, at least in some cases, may be the family habit of ingesting more salt than is necessary. Certainly, in such cases, the advice to maintain the growing child on a low salt intake and to discourage the formation of an appetite for salty food may prove to be a large safety factor.

Breaking the salt habit effectively would create: subsequent generations with no temptation to the overuse of salt; entire families with no fondness for salt; whole generations who would have no use for salt substitutes.

Aborigines of many of the islands of the Pacific are characterized by two features: They never add salt to any of their foods, and they almost never have hypertension. They are surrounded by salty sea water in all directions but do not add salt to food.

TB Tests for Children

The American Academy of Pediatrics recommends periodic tuberculin skin tests for children on a routine basis. Increased incidence of tuberculosis in school children despite a decrease in the disease overall in large cities mandates a continuing diagnostic program.

THE INDIANA STATE MEDICAL ASSOCIATION
1982 Annual Meeting—Oct. 15-18, Indianapolis

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Reducing Sodium Content

"Action in Pharmacy" newsletter says most clinicians believe people should reduce their intake of sodium to avoid developing essential hypertension. In addition, the newsletter says, some physicians believe that the public would be "better off health-wise if it reduced the usage of canned foods, which are usually rich in sodium content."

Arthur Hull Hayes, FDA commissioner and a pioneer in establishing hypertension clinics, recently issued a call to the processed food industry to include information on sodium content in the labeling of its products. According to Mr. Hayes, the voluntary response has been "most gratifying."

Pointing out that total compliance with the FDA request "is some distance away," the newsletter credits the industry with responding admirably, not only with the labeling request but also with the labeling request to develop low-sodium or no-sodium processed foods.

Taxing and Looting

Guest Editorial



L. A. ARATA, M.D.
Shelbyville

WHATEVER THE VIRTUES of "supply side economics" may be, there is one great item that the politicians and economists fail to mention: the total loot taken in taxes in relation to the total disbursed according to the national budget.

It seems rather basic that the astronomical sums appropriated and squandered by the Pirates of the Potomac (Congress) must come from somewhere. The pockets of the producing taxpayers and the accumulated wealth of the nation are the only sources. The "borrowing" done to cover the deficits is the sham that covers up the "looting" of the accumulated wealth by inflation caused by borrowing.

It further seems quite obvious that the Pirates, acting in the traditions of pirates, want to continue to loot. To make their looting seem more humane, they try to sell the taxpayers the idea that this must be done for "social programs." The pleas that social programs must be expanded, and that the national budget must not be balanced by cuts in social programs is trumpeted to the high heavens. Many well intentioned taxpayers seem to accept the trumpetings as of divine origin. Many so-called labor leaders and religious leaders seem to have swallowed the trumpetings as divinely inspired dogma.

If I were a factory worker or unskilled laborer trying to support my family on a $5-$10 per hour wage (minus deductions), I would, like them, be struggling to pay the rent or mortgage, plus feeding and clothing my family. It is a tribute to their economic savvy that so many of them do so successfully. In a time of layoffs, cuts in hourly wages and plant closings, their shrinking incomes make it even more difficult to cover their budgets. One wonders how they do it. Now, since their fiscal solvency demands that they do it, I believe that no less be demanded of the Pirates who control the national purse strings. Let them cut the cost of social programs; demand that they cut appropriations to amounts that working taxpayers can afford. In depressed economic times such as exist at present, the recipients of social programs should have the programs cut back as hard as, or harder than the working taxpayers have had to cut their personal and family budgets.

If I were a card-carrying union member at present (I have held cards in three different unions in the past), and my union officials supported the tax squandering Pirates, I would object as hard as I could to such union leaders; as it is, I can voice my opinions at the ballot box by voting against the Pirates in the upcoming Congressional elections. Should any of us do less?

ORPHAN DRUGS

Editorial

THE PROBLEM OF DRUGS that are necessary and often life-saving but are required so infrequently as to make their manufacture and distribution an economically unsound venture is not a new one.

For many years all the large, research-oriented pharmaceutical houses have provided a wide range of such medications and have absorbed the monetary loss as a contribution to good will and the furtherance of good health and long life for those who are afflicted with rare medical conditions.

The cost of developing new drugs for treating rare medical conditions is skyrocketing. Fortunately, something is being done to help . . . .

Products of this nature are designated as public service drugs and most large pharmaceutical manufacturers have adopted a full list of such money-losing preparations; most of the companies have as large a list as can be compatable with reasonable financial policies.

Snake antivenin is a good example for this group of pharmaceuticals. Bites by poisonous snakes are rare. Nonetheless, each hospital and most of the pharmacies in the considerable extent of the United States inhabited by dangerous snakes are obligated to stock the antivenin. These stocks must be replaced in accordance with the shelf life.

The enormous expense of such a pharmaceutical convenience is accepted by society as a reasonable precaution. However, the expense far exceeds the financial ability of an ordinary citizen to repay. "Rattlesnakes almost never bite the rich people." Someone else or some other entity must assume the burden imposed by the vital need for therapy for rare conditions. In this case, the burden has been willingly assumed by the pharmaceutical industry. It is a life-saving system that has grown gradually to significant proportions.

There is another pharmaceutical need that has been recognized recently by the industry and by Congress. Most of the public service drugs were originated in the days when research and development costs were much less than they are today. Costs are now so high as to discourage the discovery of drugs for the treatment of rare medical conditions which, in many instances, have no means for drug therapy.

Amyotrophic lateral sclerosis, cerebral palsy, Chagas' disease, cystic fibrosis, Friedreich's ataxia, multiple sclerosis and muscular dystrophy are some of the diseases that need pharmaceutical aid. There are at least 280 diseases in the neurology area that are of low incidence.

Because of the differing conditions with such rare diseases, a new nomenclature has developed. Such diseases are now referred to as Orphan Diseases and the pharmaceutical compounds now in the discovery stage and in the future are labeled Orphan Drugs.

The Pharmaceutical Manufacturers Association has formed a Commission on Drugs for Rare Diseases. The eight-member commission is chaired by Dr. Theodore Cooper and comprises representatives of research-oriented companies that are knowledgeable in this field.

The commission collects and disseminates research leads on possible cures for rare diseases; it also promotes the production of effective drugs regardless of profitability considerations.

A bill has been introduced in Congress to provide financial incentives to the Orphan Drug research project and to provide tax benefits for those who make and distribute effective drugs that are applicable to the treatment of Orphan Diseases.

The bill also provides for overall control of the project by charging the FDA with the duty of registering and certifying Orphan Drugs for special consideration.

The pharmaceutical industry and the Congress are to be commended for the establishment of such a public-spirited program.

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Serving the Local Interest: The Value of a State Medical Journal

Guest Editorial

Our thanks to the Delaware Medical Journal *for the following editorial, which appeared for the second time in its January 1982 issue. It first appeared in that publication in December 1911 and was written by then-editor Albert Robin, M.D. Some things never change. . . .*

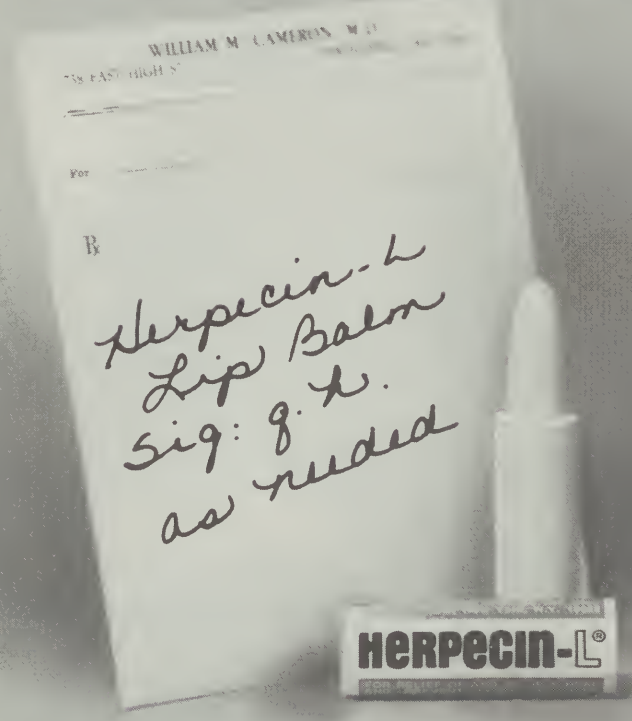
The question may arise in the minds of our members as to the raison d'etre of a State Medical Journal. Surely, there are enough medical journals to satisfy the needs of the most exacting, and quite a few journals which are so superior to anything that we may publish that the very attempt to equal them, much less to replace them, would be like the performance of the bullfrog who tried his best to inflate himself to the size of the ox.

However, no matter how splendid these journals are, they do not serve local interests. Much as the interests of all the doctors are in common, there are special local interests which affect the doctors of a given locality. The conditions under which we practice in this state are different from those prevailing in another state; our medical laws are different; our medical problems are different; and even our doctors are just a bit different from those of other states. These local interests require special expression which can find place only in a local publication.

While this journal is published by the State Medical Society, it shall exist for the benefit of all the doctors in the state, and will depend for its success on the good will and cooperation of every member of our profession.

We solicit brief articles on medical subjects, personal items, and free expression of opinion on any subject of interest to our doctors. It is only by such help and cooperation that we will be able to make a real live journal which will be welcome to the doctor's office and of which we will all feel proud.

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But, They Didn't Tell Me About That!

Business-Financial Advice for Physicians



RONALD R. DICKINSON
Noblesville, Ind.

DO YOU REMEMBER that day when you stepped out of the hospital or your home and said, "I've finally made it! I'm now ready to set up my own practice!" For many of you, the decisions of opening your own practice and establishing good practice management procedures may have been rather easy. For others it was not easy and is still causing you grief after years of practicing medicine.

After traveling this great State of Indiana for 16 years and working with doctors, I find the problems created by lack of business and economic education still haunt most physicians. During the next few months, I shall attempt to help you become better business professionals through a series of articles devoted to practice management and financial knowledge.

Let's start by recognizing that most physicians are as intelligent as anyone God has placed on this earth. Next, let's assume that if you give an intelligent individual sound, basic working knowledge about a subject, he will grasp the concepts and bypass many of the pitfalls.

For years, physicians have been the topic of many comments about their lack of business and investment ability. Unfortunately, many of these comments and stories are true. But, it is not your fault when you realize how many years are devoted to perfecting your speciality skills and how few minutes are given to you in business or economic education. Understandably so, your priority is to provide the best professional care possible for your patients.

As an answer to these problems, books have been written and many consultants across this land have held out the *promise* that if you do what they tell you to do *you will be successful.* However, most fail to deal with the fact that *you are an individual.* Just as one surgeon perfects his unique skills, those same skills may not be the solution for a surgeon in the next operating room. Therefore, you must realize that as an intelligent and unique individual, your practice management and economic problems, most likely, will not be solved by a fellow physician, or by a book written to cover the general subject, or by an advisor who will not look at you and your problems on an individual basis, but rather on a one-answer-fits-all basis.

During the coming months we shall review the following subjects and give suggestions on how to use the information:

- Setting up your practice
- Dealing with the bank
- Borrowing money
- Understanding profiles
- Establishing your procedures and policies
- Communication
- Financial planning
- Contracts and leases
- Insurance
- Investments
- Where to seek the right answers for you

Most of you have heard that old expression, "If you were hungry and I gave you a fish, you would be fine for a day; but if I gave you a pole and taught you to fish, you would survive for a lifetime."

With this comment in mind, never accept mediocrity or grief again that comes from lack of business and financial knowledge. Learn to recognize your individual and practice management problems and then learn to solve them by seeking your own answers. You will find there is no greater satisfaction than the realization you achieved financial and business success during your life—as well as having become a dedicated and successful physician.

Mr. Dickinson is president of Simplified Systems, Inc., Noblesville. He also is state director of Physicians Planning Service, Indiana; state manager of the National Association of Professions; and an instructor for the Continuing Education of CPAs.



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'Especially for You'

Review of a Patient Education Series on Breast Cancer

Especially for You . . . a patient education series on breast cancer. ¾-inch videocassette, color. Times: Part One, "Breast Self-Examination," 5:18; Part Two, "Diagnosis," 10:07; Part Three, "Treatment," 17:13; Part Four, "Recovery and Reconstruction," 11:34; Part Five, "You're Not Alone," 14:20. Continuous play ¾" videotape, $160, or ½" tape, $150; five-tape set on ¾" tape, $290, or on ½" tape, $250. Produced by Methodist Hospital of Indiana, Inc., and WISH-TV, Channel 8, Indianapolis. Distributed by Circle Video Productions, 2901 W. 16th Street, Indianapolis, Ind. 46222. Copyright 1980.

This series provides information that will be useful to the lay public and to breast disease patients, addressing the pertinent questions which are frequently raised by patients and their families.

In sequence, the five tapes include discussions of breast self-examination techniques ("Part One: Breast Self-Examination"), procedures used to diagnose breast cancer ("Part Two: Diagnosis"), treatment options ("Part Three: Treatments"), recovery and reconstruction ("Part Four: Recovery and Reconstruction"), and conversations with mastectomy patients who discuss post-operative emotions and coping strategies ("Part Five: You're Not Alone").

Reviewed by James A. Madura, M.D., Professor of Surgery, Indiana University School of Medicine; and by Mark B. Stahl, Educational Consultant, and Karen L. Forst, Educational Media Specialist, Medical Education Resources Program, Indiana University School of Medicine.

"Especially For You" utilizes a question-and-answer format. It is a generally effective technique, both posing and answering the numerous questions that a patient with a breast lump might present to her surgeon or primary care physician. The format is, perhaps, too elementary to be directly useful as an educational tool for an experienced surgeon, or to someone already knowledgeable in breast disease. However, for the primary audience—patients and their families—this question-and-answer technique effectively brings to light many of the questions patients ask about breast disease but which, unfortunately, frequently go unanswered. The factual content of the entire series is accurate and up-to-date.

In "Part One: Breast Self-Examination," a patient demonstrates in both her physician's office and in her home, the proper breast self-exam techniques. These techniques are effectively demonstrated, providing the viewer with sufficient information for conducting a self-examination of the breasts. A modified self-exam technique is presented for post-mastectomy patients who are encouraged to continue performing self-exams on a monthly basis. The length of this first segment is only five minutes, eighteen seconds; however, the information is clearly explained and introduced at a suitable pace.

"Part Two: Diagnosis" describes several procedures used to diagnose breast disease; cyst aspirations, biopsies, mammograms, ultrasound and bone scans are included. One-step and two-step biopsies are presented as alternative procedures and the advantages of each method are explained. The accompanying promotional literature states that through the use of actual mammograms and pathology slides, the viewer learns what the doctor looks for and how cancer is discovered. Unfortunately, the mammograms and pathology slides are not clearly presented or shown in sufficient detail and, consequently, do not serve any significant instructional purpose.

"Diagnosis" is perhaps the weakest of the five tapes. Unlike Part One where information in introduced at an appropriate pace, in "Diagnosis" the narrator speaks a little too rapidly, making comprehension difficult. Also, this second tape may be technically the poorest of the five; the audio quality of the review copy was tinny at times, causing distracting distortions to voices.

The Halsted radical, modified radical, simple breast removal, lumpectomy and radium implant surgeries are discussed as possible treatment options in "Part Three: Treatments." This tape is the longest of the series, but it is also one of the most effective. Patient questions about recovery time, scars, side effects and emotional responses are presented and appropriately answered.

In "Treatments," surgical procedures are appropriately and concisely discussed. The patient demonstrations of surgery and of the final results of the operations and therapy are especially effective.

The demonstrations vividly illustrate what mastectomy scars look like and describe some of the newer procedures (such as local excision with radiation) without being too gory for the patient and her family to view.

"Part Four: Recovery and Reconstruction" presents a straightforward, thorough discussion of reconstructive surgery—carefully pointing out safety, financial and recovery time considerations as well as emphasizing the limitations of reconstruction. The viewer is presented with examples of reconstruction of both Halsted and modified radical mastectomy patients. Nipple reconstruction is explained. The tape also points out that reconstruction may not be an appropriate choice for all patients.

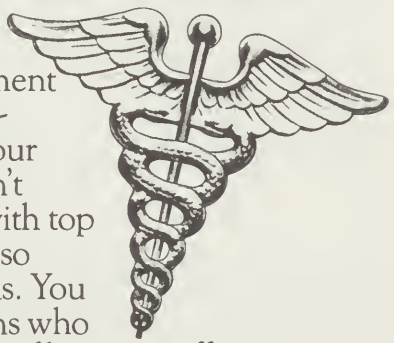
"Recovery and Reconstruction" has some of the same audio problems which are present in the first three tapes. Nevertheless, this fourth segment of "Especially For You" is a very effective tape that generally accomplishes what it purports to do.

For many patients, however, "Part Five: You're Not Alone" may be the most influential tape in the series. Mastectomy patients candidly and articulately discuss their post-surgery emotions and coping strategies. This fifth tape also benefits from being the most technically high quality segment of the series.

The production quality of the series varies from tape to tape. The audio quality of segments one, two and three could be improved—slight distortions to the voices may be distracting to some viewers. If individual tapes are viewed apart from the context of the series, then it would be less confusing if the narrator had been visually established at the beginning of each tape; viewed consecutively, this concern becomes less important. Also, since there is no brief statement of purpose or objectives at the beginning of each tape, supplying viewers with supplementary materials and/or introductory comments may facilitate comprehension. The total viewing time is slightly under one hour. A condensed, single tape version of 30 minutes, summarizing the highlights of each tape, might be appropriate for some patient education endeavors.

Overall, however, "Expecially For You" is a sensitive, informative series that will make a good addition to any patient education library.

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Reagan's Game: One Home Run at a Time

The Voice of Business



JOHN W. WALLS
President
Indiana Chamber of Commerce

SEEMS LIKE ONLY YESTERDAY that the nation's number one economic bad boy was inflation. Mr. Gallup's polls said so. So did the Harris polls. The platforms of both major political parties during the 1980 election campaign said so. Then-candidate Ronald Reagan said so. So did then-President Jimmy Carter.

A scant eighteen months ago, *everybody* was saying economic heaven would be here if inflation could be controlled.

And it's easy to remember why inflation was at the top of our worry list. We had spent a miserable 15 years of incredible policy blunders coming from Washington.

First, Lyndon Johnson decided Vietnam could be fought on a "guns and butter" basis, kicking off the inflation game. Richard Nixon originally imposed wage and price controls (which didn't work very well, of course) in the early 1970s because inflation had ballooned to an "unacceptable" 6 percent.

Prices then ratcheted upward ever faster. Remember Jerry Ford's "Whip Inflation Now" (WIN) buttons and Jimmy Carter's fireside chats blaming everything but the government money printers for inflation? Both were about as effective as a Little Leaguer pitching to Hank Aaron.

By 1980, the Consumer Price Index (the most popular, although not the best inflation barometer) was rising at a rate of nearly 12 percent per year, with spurts coming close to 20 percent annual rates.

This meant prices were doubling every six years or so. The value of savings, life insurance policies and fixed retirement payments were being cut in half every six years.

Consider the current advertisement showing how a 30-year-old opening an Individual Retirement Account might expect to be a millionaire by the time he reached age 60. Inflation at those rates would render his million bucks worth exactly enough to buy four modestly-equipped Chevettes!

President Reagan has had 14 months in office to deal with public enemy number one. In the midst of the protests over high unemployment levels (which we suspected would have to occur for him to succeed), it is at least fair to ask how he has done in the first job we told him to do back in November of 1980—get inflation down.

The answer is, he has succeeded so well that inflation is no longer our first concern. Reagan recognized that inflation is not caused by greedy oil shieks, greedy corporations or greedy labor unions, to cite three simplistic views. The cause is government creating too much money.

He encouraged the Federal Reserve to stop printing so much of the stuff. He then decontrolled oil prices to cut the ground from under the shieks. Those who said this would lay open the consumer to oil company gouging should be publicly flogged as we witness the spectacle of gasoline prices tumbling and OPEC nations begging for customers.

The result? The CPI has had a few months below 5 percent and should average about 6 percent or so this year. In February, the highly respected survey of the National Association of Purchasing Management showed only the second price *drop* in two decades.

If anyone wants to bet you that Reagan won't handle unemployment just as effectively—take it.

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PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

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J-9043-4 July 1981



AUXILIARY REPORT

Karen (Mrs. Robert M.) Schleinkofer
President, ISMA Auxiliary

I recently attended the Tenth Anniversary National Leadership Conference sponsored by the AMA. The purpose of this conference was to help the leaders of various medical societies improve their leadership abilities and increase their knowledge in vital areas. As president of the Indiana State Medical Association Auxiliary, I went for this purpose.

Important issues such as voluntarism, competition, physician/hospital relationships, block grants, cost effectiveness initiatives and Medicaid were presented in an amiable atmosphere by highly qualified professionals. I enjoyed the lectures and felt that they were well presented and informative.

One session that I attended dealt with private sector initiatives in cost effectiveness. This panel discussion centered on both national and local cost effectiveness programs that have proved successful in the past. I also attended a lecture on voluntarism, which stressed the need for increased citizen involvement. With a decrease in the federal funding of social programs, the concerned individual will have to play a more pronounced role in community health services.

The sessions offered diversified views of today's medicine and its practice. I enjoyed the breakfast presentation on "The Practice of Medicine in the Paintings of Norman Rockwell." I particularly liked the session by Thomas Sowell, Ph.D., senior fellow at the Hoover Institution of Stanford University. I felt his presentation on the relationship between medicine and economics was informative and extremely useful.

The theme for this year's conference, held in Chicago at the end of February, was "A New Beginning," which symbolized the emergence of a new sense of participation by individuals in community health services. For me, this theme was quite appropriate, for I am commencing my presidential duties at this time of year. I feel that the knowledge I acquired at this conference's lectures will prove to be instrumental in my functions as the president of the Indiana State Medical Association Auxiliary.

Welcome

THE JOURNAL welcomes Mrs. Robert M. Schleinkofer (Karen) as the 54th president of the ISMA Auxiliary.

Karen is from Fort Wayne where her husband is engaged in family practice.

The Schleinkofers have five children. Michael, an Indiana University graduate, lives in Houston; Jan is a junior at Ball State, David and Lynne are high school students, and Rob is a fifth grader.

They are members of St. Charles Catholic Church, of which Karen is a past secretary of the parish council. She also has been active in Girl Scouting, having served four years on the board of directors, and served as co-chairman this year of a high school auction fund-raiser.

Karen has served as president of the Allen County Medical Auxiliary and of the Parkview Hospital Medical Staff Auxiliary. At the state level of ISMAA, she has served as legislation chairman (two years) and as treasurer (three years).

Karen, a CPR instructor for the Red Cross, enjoys tennis, bowling and reading.

Personal Relations Between Physicians and Patients

JOHN LACHS, Ph.D.
Nashville, Tenn.

ANYONE WHO HAS ever dealt with a child, a car salesman or an IRS agent knows that personal relations are difficult. They are especially problematic and difficult between physicians and their patients for at least two reasons unique to the context of healing and caring.

The first is the inequality inherent in the relation. At least in our system of sick-care, the patient brings to the encounter symptoms he can neither understand nor manage. The physician, by contrast, offers healing knowledge and life-saving or at least life-enhancing activity.

The second reason is that the encounter is often saturated with the urgency of disease or at the very least the worry and vulnerability of the patient. The time, the mood, the conditions, even the desire for a personal relationship are simply absent. To the physician the patient is necessarily a body—an object. From his own standpoint the patient is a feeling, suffering being—nearly the only, certainly the most important, subject.

Doctors typically seek a professional relation of care without closeness, while many patients want friendship and support in addition to competent advice.

But we must be careful here. For when we speak of personal relations we might mean either one of two things. In one sense, personal relations are ones of friendship and intimacy reserved for a few people dear to us. Professional and cash-based and casual relations contrast with this sense of what is personal and close.

In another sense, however, personal relations are simply relations between persons, and specifically relations in which we acknowledge that we are related to persons, to individual human beings and not to fruitflies, kidneys or the Pyramids. Although we sometimes treat people as though they were dogs, the proper contrast of personal relations in this sense is with the impersonal treatment we accord to socks, disposable syringes and cigars.

In analyzing the proper relationship between physicians and patients, I do not find the notion of personal, in the sense of intimate,

The author is Professor, Department of Philosophy, Vanderbilt University, Nashville, Tenn. 37235.

Presented at a seminar on "Personal Relationships with Patients," sponsored by Reid Memorial Hospital and Indiana University School of Medicine, Richmond, Ind., May 21, 1981.

relations helpful. For there is a fundamental divergence in aim and expectation between physician and patient on this point: Doctors typically seek a professional relation of care without closeness, while many patients want friendship and support in addition to competent advice. As a consequence, neither side is fully satisfied. The physician may believe that friendship and intimacy interfere with a professional relation; the patient, on the other hand, feels that without personal support as its content the professional relation remains cold and empty.

It is much better to start with the other, relatively modest notion of personal relation: the idea that the relation between physician and patient is one between thinking and feeling persons. This seems, on the face of it, an obvious if not trivial starting point. Everyone knows that patients are people and it is clear that even surgeons are not gods. Yet even though we know this, we tend to forget. One of the points I particularly want to stress is that if we kept it uppermost in mind, both our attitudes and behavior would be profoundly affected.

What, then, is the proper relationship between physicians and their patients? The moment the question is put this boldly, I find myself tempted to frame a sweeping answer. This temptation is part of a professional disease of philosophers. We love elegant theories, cosmic generalizations, universal truths. In the process of enunciating them we tend, unfortunately, to lose sight of the rich and irreducible diversity of facts. The developing dialogue between philosophy and such professions as medicine is so promising because the sciences and the professions powerfully remind philosophers to attend to facts and to remain humble in their presence. Philosophy, in turn, can help the professions by providing the tools to face courageously and to deal rationally with intractable, ultimate human problems.

Let me, therefore, resist the temptation to give too simple an answer to a difficult question. There is not, there cannot be a *single* right relation between physicians and patients. Individuals and circumstances differ and morality consists not in uniformity or even in universal rules but in the conscientious application of principles to facts. And the facts are intrinsically diverse.

The relation of an emergency room physician to the unconscious accident victim, of house staff to a woman in a deep coma, of a tertiary care specialist to the person about whom he is consulted cannot be assimilated to the relation of a family physician to his lifelong patient. We simply cannot find compelling similarities between the relation of a surgeon to his patient needing a routine appendectomy and the complex interaction of physician and patient in a chronic disease such as diabetes.

It is best to admit that any model of the physician-patient relationship is just that—an ideal pattern broadly but not universally applicable. The value of such a model is twofold: It provides guidance in the conduct of our affairs and it requires that deviations from it be justified.

There are three great models of the relation of physicians to patients. All three are no doubt of ancient origin. All three are present in our own society. I shall discuss each and argue that the first two are inadequate. Only the third, relatively neglected model does justice to the special nature of the healing and caring relation and to the fact that it is a relation between persons.

The expert/ignoramus model. In an important sense, the relation between physician and patient is one between unequals. The doctor embodies knowledge in the fullest signification: He understands disease processes and can engage in preventive, curative or ameliorative actions on the basis of his understanding. It is not, of course, that every condition can be reversed. But there is little doubt that medicine is a classic instance of the coincidence of knowledge and action, a field in which cognitive grasp enlightens what we do and successful practices, in turn, contribute to the expansion of our understanding.

If the patient's desires represent an impediment to his getting well, the physician is thought fully warranted in disregarding them.

By contrast, the patient is essentially ignorant. It is risky to speculate on the levels of human ignorance, but I cannot be far from the truth in saying that the average person knows less about his body than about the constitution of the stars. As a result, patients are unreliable; frequently, it is best to bypass them altogether and to go for help in healing directly to their more intelligent bodies.

One would like to think that such inequality between physicians and patients is morally irrelevant to their interaction. But this, in fact, is not the way things have been perceived. Knowledge is frequently conceived as the foundation of authority; accordingly, the expertise of physicians has often been thought to confer on them special rights. The prescription of drugs and the performance of complex surgical procedures are exclusive rights granted

to doctors by society presumably in recognition of their special knowledge and skills. Physicians themselves frequently suppose that their superior knowledge entitles them to make critical decisions about patients, decisions the patients cannot be expected, trusted or permitted to make.

Sometimes the special rights are thought to be justified simply by greater wisdom or more information. More often, however, the justification is cast in terms of desirable consequences to be achieved. For the primary responsibility of the physician is to the health and welfare of his patients; if the patient's desires represent an impediment to his getting well, the physician is thought fully warranted in disregarding them.

The important notion here is that the doctor becomes the primary decision-maker. The patient is viewed paternalistically, as though he were a child who is to be humored to a point, but beyond that lectured and overruled. "I want you in the hospital next week," the physician says, while his secretary makes the reservation. On this model, physicians' edicts have the imperative form and patient autonomy is but the reluctance of those who do not understand.

It is fair to say that many, though by no means all, physicians have this model in the back of their minds when they deal with their patients. That this is a natural mode of thought is further revealed by the frustration even those physicians who leave more room for patient autonomy feel when persons they treat fail to adhere to their regimen or make choices known to be injurious. But in spite of the understandable naturalness of this attitude, the expert-ignoramus model that stands behind it is an inadequate way of conceiving the physician-patient relation.

The reason for this is profoundly important because it resides in the nature of man. Knowledge has no claim over self-determination. The fact that I possess knowledge may well give me power, but it cannot provide the right to use it without consent to direct the lives of others. It is comfortable to suppose that what we do is in the best interest of others. But it is crucial to remember that sometimes people prefer not to have what is, in some objective sense, in their best interest. Thus human welfare and happiness are not exclusively objective affairs; without the subjective element of choice, the most objectively useful things may appear noxious.

The system of fee-for-service invites the notion that the physician is advisor to the king—appear when called, speak when asked, do when told.

I can make my point with unceremonious simplicity. People cannot be left out when we determine what is good for them. In leaving them out, we do more than affirm their ignorance—we deny their autonomy. To deny autonomy is to disallow the right to make choices, even foolish and wrong ones. And to view another as unworthy or incapable of making choices is to cast aside his humanity.

You can see, then, that this model violates our initial premise that the physician-patient relation is one that obtains between *persons*. Inequality of knowledge is rendered irrelevant by the equality of the parties as persons. It is worth remarking that God, who knew even more than the average internist, permitted Adam, who knew even less than the average patient because he was afflicted with love, to make his own choices—and that meant his own mistakes.

The physician-as-tool model. Those who take patient autonomy seriously have recently enjoyed the vigorous support of consumer advocates in health care. The model of physician-patient interaction in the minds of both of these groups is rarely articulated, even though it is gaining credibility, if not wholehearted acceptance. This model is the mirror-image of the previous one. It stresses the ultimate right of the patient to determine his own fate. This right is thought to be grounded in the individuality, the independence and self-activity of the human person.

There is growing concern that being a patient naturally entails loss of control on the part of the individual and encourages, if it does not require, passivity. The physician-as-tool model is used to reaffirm control and to counteract passivity. The patient is represented as engaged in the activity of curing himself; the physician is merely the instrument utilized to accomplish this end. On this view, the doctor might just as well be a computer: He is consulted to make a diagnosis and to outline alternative courses of action to deal with the problem. But he is on a short leash: No treatment decision is made by him and each new line of action must be patient-authorized. The physician has no blanket or even broad permission to proceed; his role is best described as advisor to the king. He is to appear when called, speak when asked, do when told.

Evidently, this relationship exists rarely, if ever, in its purity. And under certain conditions, such as obtained in the case of complex

surgical procedures and in emergency rooms, it cannot exist at all. Yet some physicians feel comfortable with it and in an odd sort of way the entire system of fee-for-service invites or at least supports it. For in paying for doctors' work, the patient is a customer and we all know that the customer is always right. In buying health services, the consumer needs to choose what he wants and get what he pays for.

In spite of the useful reminder it provides of the importance of patient autonomy, the physician-as-tool model fails on a variety of counts. It is, first of all, altogether unrealistic. For the most part, patients and their physicians do not and probably cannot relate in this way. Moreover, even if they could, it is unlikely that the relation would be productive or satisfying to either side.

But, most important, the model is morally flawed. It fails to capture the peculiar intimacy of a relation in which physical and psychological privacy are surrendered and in which two human beings strive in partnership to reverse the processes of disease and decay. The fact that this model downgrades the physician to the level of a mere tool is a clear demonstration that according to it, the healing and caring relation is not social involving persons, but masturbatory, limited to one person and an instrument.

The partnership model. The third model lacks the obvious inadequacies of the prior two. It gives proper weight to the requirement that the physician-patient relation be conceived as one between autonomous persons. The notion of partnership is particularly useful in the attempt to articulate the structure of the interaction. For partners are independent individuals temporarily united in quest of a common goal. Each partner brings divergent talents to the union and each makes a different contribution. Neither is passive and neither is inferior; the free agreement to pool resources implies equality and therefore equal rights.

This appears to me to be a useful way of understanding the ideal relation of physician and patient. For they are engaged in a joint enterprise: Their aim is shared and neither can accomplish it without the participation of the other. In moments of optimism about the prospects of scientific medicine, we might believe that a surgical procedure or some pills are adequate to restore health; all we need of the patient is to give access to his body. Such cases clearly do occur, but it is misleading to take them as our standard. The quest for health is a lifelong endeavor; in it the patient is no less active and involved than his physician. The proper paradigm is the situation that exists in chronic, not in acute, disease. There health is a goal never certainly and never for long achieved. Even to come near it requires the concerted efforts of physician and patient. Without this partnership of equals in the management of chronic disease, no healing or even caring can take place.

The physician and patient are engaged in a joint enterprise: Their aim is shared and neither can accomplish it without the participation of the other.

In acknowledging each other as partners, patient and physician must respect one another both as independent individuals and for what each can do. Decisions are likely to be made in concert even if not always in unison. Respect and cooperation require full disclosure: Informed consent, meaningless apart from the ongoing educational efforts of the physician, is the natural outcome of such sustained partnership. Honesty tempered by care sets the tone for the relationship; there is no room for paternalism or dissembling when equal partners communicate.

It is obvious that such partnership cannot always be attained. The condition, the intelligence, the circumstances of the patient may make it altogether impossible to view him or to expect him to act as a partner. That does not tend to weaken the partnership model as a proper ideal of physician-patient interaction. Such partnership should be our aim. I am convinced that many more patients can respond to the call to this relation and more can develop it to its full potential than we would ever expect. Admittedly, this means that physicians have to take the lead in fostering the partnership. But this is neither difficult nor unnatural. I want to leave you with three very good reasons for doing it.

The first is that education in health care and in self-respect are central parts of the task of doctoring. The role of physician as educator is too often forgotten; it is time to start stressing the total human, and that means educational, context of healing. The second reason is that frequently, though not always, partnership in the quest for health yields better results than any alternative relation. Finally, let me appeal to self-interest. Litigation among partners is not unknown. But a patient who views himself as an equal participant in a difficult and uncertain undertaking is much less likely to sue than someone who thinks he is buying services or who expects wise and charismatic Dr. Welby to save him from everything.

Business-Medicine Coalitions: Are They the Answer?



BROCK L. WEISENBERGER, M.D.
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INCREASINGLY, THE STATE of America's health care system is being labeled a "crisis"—not in terms of quality, for America has the finest health care system in the world, but in terms of cost.

Business has contributed to the escalation of costs. In the past, medical benefits granted contractually to employees were easier to grant than dollars in exchange for some desired union concession. These hidden labor costs were difficult to forecast; their consequences were far removed. Many companies were more concerned with keeping up with their competitors' benefit packages, and considered these medical costs to be items that could be incorporated into the end cost of their product or service.

Since the 1950s health care costs have risen from $12 billion to more than $250 billion per year, a soaring increase of over 2,000%. Employers are now paying about half of this bill. And these costs do not include the additional costs to industry of absenteeism, replacing employees, training, rehabilitation, sick leave, long-term disability, and taxes to support local, state or federally funded health activities.

As industries are striving to achieve the 5% profit, more and more financial officers are beginning to look at these expenditures.

Birth of Coalitions

In the late 1970s, the American Medical Association initiated a program of discussion with top corporate leaders in the country. These interchanges gave birth to the concept of business-medicine coalitions, in which physicians and businessmen began sitting down together to work on cost containment.

From these early coalitions, opportunities have developed for both medicine and business. Medicine is improving its image with business and the community in general. It is participating in another program of community service, once again assuming a leadership role in the health care system. Business is gaining more facts regarding the health care dollar, a better understanding of medical care and, consequently, a more realistic approach to correcting cost problems. It is more able to present those problems to physicians and work toward solutions that are favorable for both parties.

Although many business-medicine coalitions are being formed on a statewide basis, the major functions of these coalitions will be to encourage the development of local coalitions—most issues need to be addressed at a local level as they relate to community, local business, union contracts, local economy and availability of medical services.

State coalitions then can serve as a resource to local coalitions, exchanging information such as organizing techniques, problem-solving ideas that have succeeded and those that have failed, etc. As local coalitions proceed through their successes and failures, hopefully some solid practical applications will develop that can be further expanded and shared with other emerging coalitions.

Business has administrative and financial skills to offer medicine; it understands cost effectiveness, but believes in a profit-making, incentive-oriented society. Medicine's contribution comes through the physicians who control if, how, where and when the health care dollars are spent. They have the expertise to appraise quality and engineer change in medical care without affecting the former adversely. And they are used to working for the public good.

The earliest coalitions are identifying major issues with a remarkable similarity.

Information Exchange

Physicians have little knowledge of the operations of industry or the constraints placed upon industry by physician decisions. Physicians cannot appreciate the possible hardships and expense, for example, of a requested job change when a company is operating under seniority, job class, and other contractual rules. Many times a request for a single employee to be transferred can result in dozens of employees being shifted because of complicated governing rules—and thus a complexity of expenses. Definitions of partial or total disability may vary.

Many times, neither the physician nor the patient understands the benefit system well enough to opt for the less expensive route of care.

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Prompt reporting of claims and diagnoses is another physician problem area.

Business, on the other hand, does not understand the physician-patient relationship, nor has it a good appreciation of the demands placed upon the physician by it. It does not understand the pressure many physicians are under when asked by a patient of long standing for what seems to be a simple note requesting a job change or a slight extension of sick pay coverage for a few more days. Some companies have been slow to recognize emotional illness with the same clarity as physical ailments and to provide benefit coverage for treatment. Alcohol and drug abuse also are treated (or not treated) similarly by some companies.

Absenteeism

Absence from work involves multiple factors of which illness is but one. Economic, social, psychological and other variables also are included. Certainly, the physician is the individual best qualified to determine whether an employee is unable to work and to certify such a statement of total disability on the appropriate required forms, but even he can be captured by the patient's social, psychological, cultural or economic factors.

Studies have shown as much as 65% difference in absenteeism certification between so-called "permissive" and "strict" physicians. It appears that industry must take a firm stand to preserve some financial penalty in its benefit package for absenteeism. Without this assistance, a physician will have a difficult task in working with absenteeism control.

Hospital Costs

Easily 65% of the medical expenditures of many companies can be attributed to hospital costs. Escalating use of the emergency room (many times being used more like outpatient clinics), few ambulatory surgery services, admissions for diagnostic outpatient-type services, and prolonged hospital stays all contribute to improper utilization. Hospitals, however, are responding to what the physician, patient, and even the company have asked for in many cases.

The hospital is big business in its own right. Having to compete with prevailing community labor costs

How to Start a Business-Medicine Coalition

OF THE DOZENS of business-medicine coalitions being established throughout the United States, the majority reportedly have been initiated by industry which, after all, pays about 50% of this nation's health care bills.

Indiana is an exception. In this state, medicine has been first to contact industry. Assuming that organized medicine will continue to maintain a leadership role in establishing local coalitions, the following are some guidelines for those county medical societies interested in forming local business-medicine coalitions.

1. Identify the major employers in your area. This information is available through the local chamber of commerce.

2. Do some basic research on each company:
   - How many are employed?
   - What are the annual health benefit costs?
   - Does the company offer an HMO?
   - Is the company unionized?
   - Who in the company is most involved in health issues?
   - Is there a parent company?
   - Are there any special health issues or health costs which can be readily identified?

3. Send a letter to the chief executive officers of five to ten major employers over the signature of the medical society president or board chairman. Suggest a meeting, explain your purpose, and list the other companies that may participate. If it is a regional plant of a parent company located elsewhere, write to the plant manager or the medical director, if they have one. Your medical society may already know this individual. Usually the chief executive officer will refer your letter to that person or persons within the company who are involved in the health benefit area. The presence of this level of staff is preferred, for they are most familiar with the health care issues.

If your letter is not answered within several weeks, send another

and internal unionization has markedly increased this operating cost. Legal ramifications, defensive medicine and federal mandatory services play additional roles in required services. Changes here probably will involve new medical services delivery systems and changes in hospital area utilization.

The Consumer

Probably no issue discussed can be more important than control of the consumer. Third-party payer systems have almost abolished the consumer's responsibility in the system. Insisting upon the highest quality care in hospitals where "cost is free," they ignore medical expenses. Their insurance policy costs, hidden in payroll deductions or markedly unwritten by their employer, lead them to look upon the medical care they receive as without charge.

It has been estimated that only about 15% of the health dollar is spent directly by the consumer in America. Abuses by him are legend. Thirty years ago, when Americans paid directly for their medical expenses, they chose the quality and quantity of it carefully.

Most insurance programs amortize the cost back to the consumer: auto, accident, life, etc. Unfortunately, most individual health insurance policies are written for large groups, so the individual does not see the impact of excessive spending or policy over-utilization. Ways must be found to amortize costs back to the consumer to develop a responsible and realistic attitude in Americans toward their involvement in health care systems.

Summary

These are a few of the issues that will be addressed by someone. Whether this someone will be business-medicine coalitions or other agencies remains to be seen. More than 40 such coalitions now exist and they are increasing.

Indiana has started a state business-medicine coalition, and local community or county coalitions are springing up with the state's support and encouragement. These coalitions have high potential for working, but they will require many long, hard-working hours by community leaders. Both medicine and business have always had such leaders.

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expressing your continued interest in meeting.

When an affirmative response is received, write or call reiterating the purpose of the meeting; try to establish a mutually convenient time and date to meet. Allow at least six weeks from the initial contact to the preferred meeting date. Ask for no more than a two or three hour meeting, and suggest that it can be an informal, unstructured exchange held in your headquarters or a neutral area of your choosing.

Be sure to inform the company of the names and titles of those who will attend from your society and the representatives from the other companies. Prepare badges for all participants.

4. When the meeting date is set, select only three or four representatives from the medical society to attend.

One of your representatives should be your executive director, or a designated staff member, who will be expected to take notes, prepare follow-up correspondence, and work on future plans.

Staff may need to prepare a short briefing kit for the medical society representatives. It should include pertinent information about the company as outlined in #2. Be sure the kit contains a complete list of the names and titles of the company officials. Also have some material on related medical society programs ready for distribution. Material is available from the Indiana State Medical Association.

It is important to have a briefing session with the medical society representatives who will attend. Develop your strategy, goals and approach. A brief rehearsal is probably the most crucial step in the preparations. The preferred time for this briefing would be the night before the meeting or several hours before guests arrive.

The state level business-medicine coalition can serve as a clearinghouse of information on corporate attitudes and trends nationally and on business-medicine coalition activities throughout the state. If you have questions, do not hesitate to use the coalition as a resource. Samples of contact letters used by ISMA and the AMA, minutes of past meetings and other materials are available on request.

Points to Remember

- American business and industry are the philosophical friends of medicine. They are not the "enemy." You may find an initial atmosphere of unsureness or hesitancy during your first meeting. That will probably disappear after the first few minutes.
- Keep in mind this is a joint problem-solving effort. The focus should be on what business and medicine can do together.
- Remember to return the question, i.e., "What do you suggest?" or "What are your recommendations?"
- Some top executives may want to appoint a subordinate to serve in their place. That is acceptable if the executive agrees to stay on as an active committee member.
- Close the meeting with the challenge of "Where do we go from here?"


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SMOKING CONTROL From the Oncologist's Point of View

LAURENCE H. BATES, M.D.
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THE MAGNITUDE of the health consequences of tobacco smoking and its impact on patient populations make it the single-most preventable cause of death in the United States today. Various estimates of the relative health risks of smoking have found the following serious or fatal diseases to be associated with smoking in a dose-related manner:

1. Coronary artery disease
2. Cerebrovascular disease with subarachnoid hemorrhage
3. Chronic bronchitis
4. Emphysema
5. Black lung disease
6. Peptic ulcer disease
7. Carcinoma of lung, larynx, lip, oral cavity, tongue, esophagus, kidney, bladder, ureter, and pancreas
8. Reduced birth weight and infant mortality

The relative risk factors vary with these diseases, but all are present in higher incidence in heavy smokers and in those who have smoked for a longer period of time. This clearly establishes the dose relationship between the exposure to tobacco smoke and the development of the various diseases.

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Pathogenesis of Smoking-Related Diseases

The pathogenetic mechanisms involved in the individual diseases varies with the disease but are fairly well understood. In the case of vascular diseases, the mechanism is felt to be the relative ischemia due to carbon monoxide from the tobacco smoke and its affinity to the hemoglobin molecule, resulting in damage to target organs (i.e., blood vessels, heart, brain, etc.). Peptic ulcer disease is in most cases associated with increased acid production in the stomach. Cigarette smoking is known to increase acid secretion in the stomach, and recent data relate incidence of peptic ulcers to smoking rather than to spicy foods.

Tobacco smoke is known to contain many carcinogens, and the areas of direct contact with the smoke, such as the mouth, tongue, larynx, upper esophagus and bronchus, are the sites of most frequent association between carcinoma and smoking exposure. In the tracheobronchial tree, cilia-toxic substances prevent the exposed surface from removing the carcinogenic chemicals. This results in prolonged exposure and development of neoplasm, usually at a bifurcation of the airway where the airstream slows and particulate matter is deposited.

Carcinomas of the pancreas, kidney, renal pelvis, ureter and bladder develop on surfaces where carcinogens are secreted or excreted, and bathe the epithelial surface, which is sensitive to development of neoplasm.

Chronic bronchitis and emphysema are caused by the irritative action of the tobacco smoke on the bronchioles with resultant secretion, obstruction, and infection which potentiate themselves, leading to the breakdown of alveoli and destruction of the lung.

Smoking in pregnant women results in the constriction of the placental vessels with decreased blood flow to the fetus and the transfer of carbon monoxide across the placenta to the fetal circulation, resulting in a retarded growth rate in utero with smaller birth weights and increased fetal mortality. Hyperkinesis, shortened attention span, and altered coordination, perception and learning abilities have all been shown to be associated up to age 7, in a quantitative manner, with the mother's smoking habits during pregnancy.[1,2] Unfortunately, OB-GYN physicians themselves have the highest rate of smoking among all physicians[3] and, as a result, they are less enthusiastic and less effective[4] in counseling this high-risk group of patients in smoking cessation.

The Statistics

The total impact of smoking on the health and longevity of patients is not generally known by the public or physicians. Conservative estimates indicate that the number of patients who die prematurely in the United States alone, directly related to smoking, is between 950 and 1,000 a day, or 355,875 a year. An additional 500,000 patients are diagnosed as having other smoking-related diseases.

Since death certificates do not list the underlying causes of death, there is no way to collect precise data on the mortality of cigarette use, and

morbidity reports likewise list the incidence of diseases but not their cause, which makes the adverse effect of smoking less apparent. Epidemiological studies comparing the incidence of various diseases in smokers and non-smokers have been carried out in volume and are reported in the literature. In the case of diseases accelerated by smoking, the age at which the disease is found or becomes fatal is compared in non-smokers and various levels of smoking, as well as those who have stopped smoking for varying periods of time.

Many of these data have been accumulated by organizations interested in particular diseases, such as cardiac and stroke data by the American Heart Association; chronic bronchitis, emphysema and lung cancer by the American Lung Association; cancers of various organs by the American Cancer Society; and birth defects, decreased birth weights and infant mortality by the "March of Dimes" and others.

The federal government has addressed the health issues related to smoking in two Surgeons General reports, in 1964 and 1979, which are available to physicians; in 1979 the National Commission on Smoking issued a report, but it has not generally been made available to physicians.

There are several environmental and hereditary factors that enhance the effects of smoking on development of various diseases, such as obesity and diabetes on vascular disease, alcohol intake, asbestos inhalation, and exposure to aniline dyes on cancers, and nutritional factors in fetal development.

One of the problems in communicating this information to the public—and even to some physicians—is the consistent "blanket" denial by the tobacco industry of any stated, inferred or published data relating adverse health effects to tobacco usage. Even though the lay public has no good way to distinguish between scientifically based information and rebuttal propaganda by the tobacco interests, the physician is trained to discriminate between the two and should be the authority in educating his patient population in these matters. Generally, any information released by the tobacco industry can be expected to be not based on scientific facts or studies and written in a way that gives no specific information but rather questions previous health data.

Quitting

Surveys have indicated that 90% of smokers desire to quit smoking if there were some easy way to do so. There are many programs available for smoking cessation, from both non-profit and for-profit organizations, including the American Lung Association, American Cancer Society, Seventh Day Adventists, Smoke-Enders, physicians in private practice, hospitals, and others.

Initial results of all "quit" programs are good, with high success rates, and follow-up contact helps to maintain the success by reinforcement. A variety of follow-up results are reported in the literature and indicate that from 8½% to 35% of those who quit are still not smoking from six months to one year after they have achieved initial success in quitting.[5,6]

When primary physicians advise their patients to stop smoking, the results are not as successful initially, but the six-month to one-year rate is almost identical to that of organized programs. The degree of success depends on the circumstances under which the advice is given and is much more successful when the patient has a smoking-related disease or is threatened by that disease. The physician's attitude and expectations are major factors in the patient's success in quitting, and a positive attitude will insure a higher success rate.[7]

The Physician's Role

Even though many physicians may discuss smoking with their patients, few do this with any plan, consistence or enthusiasm, often because they do not feel it is effective. Various studies have indicated that between 8% and 25% of smokers who visit their physician regularly have been told by their physician to stop smoking. Allowing for survey error, this still leaves a large population of patients whose smoking could be controlled by physician effort. My own experience is that the single-most common reason that patients give for having stopped smoking is "my doctor told me to quit."

Benefits

The impact of smoking control on health and longevity of life is well documented in the medical literature, in studies comparing smokers, and those who have quit for varying periods of time. All of these studies show an improvement in health status and longevity of those who quit. Generally, nonsmokers live seven years longer than smokers, and those who quit live from two to seven years longer, depending upon the length of time and the amount that they have smoked before quitting.

There are no other preventive health measures, including weight control, exercise, nutritional programs or blood pressure control, which on follow-up study can begin to match the seven-year average lifespan prolongation attainable by smoking cessation.

Resources

There are many resources of information available to the interested physician to make the patient aware of the health risks of smoking and approaches to smoking cessa-

tion. Most of these are free and consist of waiting-room pamphlets, posters, hand-outs for patients, and brochures explaining in lay language the hazards of smoking and the advantages to smoking cessation. There are also several aids available to help the physician in discussing smoking with patients. Sources for this information and aids include the American Academy of Family Practice, American Cancer Society, American Heart Association, American Lung Association, American Medical Association, National Cancer Institute, and the Department of Health and Human Services.

Approaches

Several subtle measures can be taken that relate the physician's attitude and concern about smoking—such as removal of ashtrays from and not allowing smoking in waiting areas, placing anti-smoking pamphlets and signs and information in waiting areas and examination rooms, and "no smoking" signs at office entrances. The exemplar role of the physician and his employees is felt to be quite important in smoking control, and any physician who does smoke should not do so in the presence of or within sight of patients whom he wishes to influence to quit smoking.

Physician involvement in school educational programs can be a valuable part of the overall smoking education program in any community. The informed physician is considered an authority on health matters and there are programs and aids available for use in schools. Slides, films and tapes are available from such organizations as the American Academy of Family Practice, American Cancer Society, United Cancer Council Agencies, American Lung Association, and the American Heart Association.

The maximum benefit in influencing the decision not to smoke is obtained in the lower grades in elementary schools, as attitudes have already been established by the time students reach the junior high school or high school levels. Progress has been made and the number of teen-age children starting to smoke has declined. From 1974 to 1981 the percentage of teen-agers who smoke dropped from 16% to 11% in boys, and from 15.3% to 12% in girls.[8] This improvement is most likely related to school programs started several years ago and reinforced in recent years.

Some physicians refuse to accept new patients or continue medical care of patients who continue to smoke. This usually results in dishonesty on the part of the patient or loss of the patient to another physician who may have little concern about the patient's smoking habits. Neither of these approaches improves the patient's health status.

A more reasonable approach is to tell the patient to quit smoking, advise him of the adverse consequences of smoking and the benefits of quitting, and if he is unable to quit on his own, guide him into an organized program to help him quit. If the patient is resistant to this approach, little can be done to influence him until a change in his health status or attitude takes place, at which time the cycle can be repeated.

Approach to Smoking Control (How to Do It)

1. Take a smoking history on every patient to determine whether he smokes or has smoked in the past, the amount and length of time he has smoked and, if he has quit, how long since he has smoked.

2. Advise every smoker to quit smoking in a very positive and direct manner, explaining to him or her the benefits of quitting as well as the hazards of not quitting.

3. Make an even stronger effort in patients who are at high risk from smoking, such as those with smoking-related diseases and pregnant women.

4. Give patients printed material they can take with them and read; give them advice on how to quit; and if they need help, refer them to an organized smoking cessation program in the community.

5. If the patient quits and starts smoking again, or is unable to quit the first time, encourage him or her to try again.

6. Support the patient who quits and feel good that you have added as much as seven years to his or her life.

Summary

The physician is probably the best informed and most influential individual in most communities to improve its health status by accepting an educational and advisory role in dealing with the smoking problem.

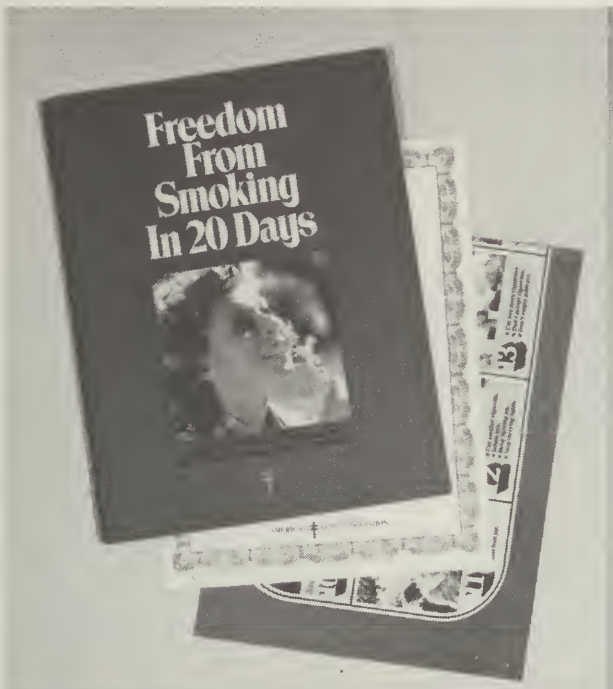
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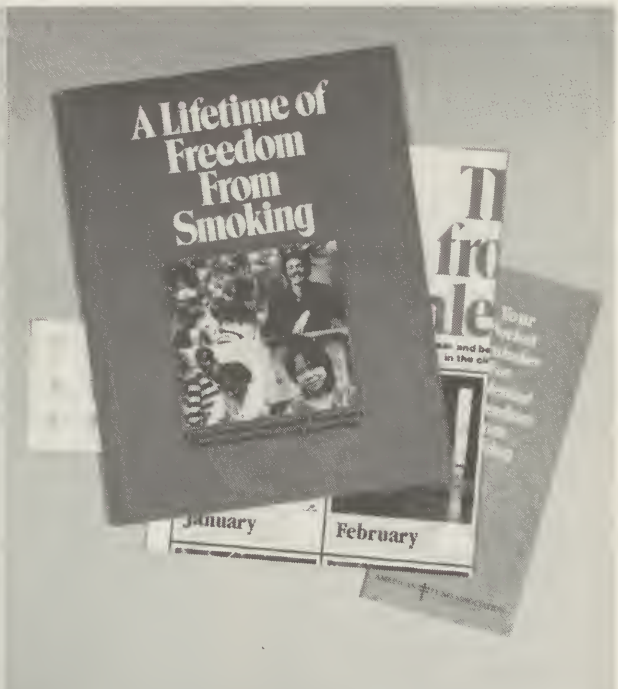
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Managing the Cigarette-Smoking Patient in Your Practice

THOMAS W. KUEBLER, M.D.
Indianapolis

MOST PHYSICIANS would agree that cigarette smoking is a significant factor in the pathogenesis of a variety of serious diseases including ischemic heart disease, chronic obstructive pulmonary disease and several cancers.

Of special concern is the rapid rise in lung cancer mortality. Unfortunately, lung cancer is now becoming more common among women. In fact, the prediction has been made that the lung cancer death rate among women will exceed that of breast cancer in this decade.

While physicians may be aware of the relationship between cigarette smoking and disease, they may not be certain of the benefits of quitting, the effectiveness of the physician in assisting patients to quit, the magnitude of the cigarette-smoking problem, or the role of the physician in treating the smoking patient. The following discussion is an attempt to clarify these issues.

Quitting Helps

Cessation of cigarette smoking leads to significant improvement in an individual's risk status regarding lung cancer, ischemic heart disease, and chronic obstructive lung disease. Doll and Hill, in their prospective study of British doctors, present data that suggest the risk of lung cancer falls during the first 15 years of cessation and then plateaus at a relatively low level.[1] This study and other epidemiologic studies support the concept that cessation of cigarette smoking leads to a progressive reduction in risk of developing lung cancer, the most common cause of cancer death.

Cessation of smoking leads to a rapid reduction in risk for ischemic heart disease. A large-scale prospective study of individuals who quit smoking revealed that mortality rates for ischemic heart disease dropped during the first year of cessation and continued to drop during the next 10 to 19 years.[2] In the Framingham Heart Disease Study, those smokers who quit after the onset of the study experienced ischemic heart disease attack rates of one-half that of those who continued to smoke.[3]

A recent epidemiologic study examined the benefits of smoking cessation on pulmonary function. Normally, pulmonary function declines with age. In smokers, this decline occurs more rapidly, and in some smokers the decline is even more accentuated. Cessation of smoking slows the rate of decline to more normal rates, which is of clinical relevance in those smokers who lose function precipitously and become pulmonary cripples.[4]

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Millions Have Quit, Millions More Have Tried

In 1975, an estimated 53 million people (31% of the total population, age 13 or older) were current smokers of a total population of 168 million (age 13 or older). However, it is interesting that there were an estimated 33 million former smokers.[5] Seventy per cent of these former smokers had not smoked in more than four years, and fewer than 10% had quit within the year before the data were collected, suggesting that most of these former smokers were long-term quitters.[6] Sixty-one per cent of current smokers have made serious attempts to stop smoking. Sixty-seven per cent of current male smokers and 75% of current female smokers have cut down the number of cigarettes smoked without trying to stop entirely.

Sixty-seven per cent of those with a history of smoking never remember a doctor advising them to quit or cut down.[6] This figure is of concern because in 1975 more than 75% of Americans had seen a physician one or more times within the past year.[7]

Many smokers are able to quit for long periods of time. Smokers make up a significant portion of the U.S. population. A majority of current smokers are trying to quit or to reduce their smoking. And although most smokers will see their doctors in any one year, the majority of smokers do not recall their physicians making an effort to encourage them to quit.

Influencing Smokers to Quit

A Scottish study reports that 62% of 125 survivors of an acute myocardial infarction remained nonsmokers for one to three years. These 125 patients received information and encouragement to stop smoking during their care while in the hospital, at home, and in a follow-up clinic. Only 27.5% of a similar group of cigarette-smoking survivors quit for one to three years after conventional care.[8]

In another study, British civil servants at high risk for cardiorespiratory disease were divided randomly into two groups. The control group received conventional care. The experimental group was invited to four short counseling sessions where they were advised of the benefits of quitting and encouraged to make up their own minds to quit. After three years of follow-up, 36% of the intervention group had quit[9] versus only 14% in the control group.

Russell, *et al.* recently reported a study in which more than 2,000 smokers, seen by 28 general practitioners, were divided into several groups. The control group received no intervention and their quit rate after one year of follow-up was 10%. But the group that was seen by a general practitioner who clearly advised them to quit, gave them a pamphlet related to quitting, and told them that he would follow their smoking status, had a quit rate of 19% after one year.[10] The above studies illustrate that doctors can significantly influence their smoking patients without relying on elaborate or expensive procedures.

Plan for Managing the Smoking Patient

1. View cigarette smoking as a chronic, often relapsing, disease. The medical record should reflect your viewing cigarette smoking as a disease.
2. Diagnose cigarette smoking.
3. Ask smoking patients if they understand how smoking may harm them. Correct errors. Ask them if they understand how quitting will help them. Correct errors. Encourage them to make up their minds to quit and then to do it. Make it clear you recommend they quit.
4. Follow their smoking behavior in future visits as you would any other serious chronic problem.
5. For those unable to quit on their own, refer, if they are willing, to reputable community resources. Consider, as well, encouraging pipes, cigars, fewer cigarettes, cigarettes with less tar and nicotine, snuff, or chewing tobacco for the patient who has difficulty quitting.
6. Use your office environment in your anti-smoking efforts. Encourage staff to act as exemplars and to quit or not smoke in the presence of patients. Use posters and pamphlets in waiting area to educate. Encourage no smoking in your office.

What Can the Physician Do Now?

The physician should have a precise management strategy available for use with cigarette-smoking patients. Imprecise strategies often lead to weak interventions and poor results. The following is a suggested management plan.

As stated in the *Table,* the first step is to examine your own views on smoking behavior. Do you view smoking as a chronic, often relapsing, yet curable disease? If you don't, you should! Too often physicians view cigarette smoking only as a habit or a risk factor.

Smoking qualifies as a disease in several ways. A disease can be defined as a morbid process having a characteristic course as it impairs

the vital functions and structure of an individual. All smokers develop some degree of small airway disease.[11] Specific anatomic lesions have been correlated with small airway dysfunction revealed on physiologic testing.[12] The small airway disease appears to be reversible.[13]

Also, some heavy cigarette smokers appear to have a definite dependency disorder, nicotine dependency, similar to opiate dependency. Some smokers appear to develop tolerance to nicotine,[14] develop withdrawal symptoms, and smoke cigarettes in a manner to maintain nicotine levels in their bodies.[15]

In summary, all cigarette smokers develop some dysfunction of the small airways, and some smokers develop nicotine dependency. Therefore, cigarette smoking should be viewed as a disease and not just a risk factor for other diseases, or simply as a habit or maladaptive behavior pattern. Your medical record should reflect the concept that smoking is a disease. If you use problem lists, smoking should be on the list. Progress notes should reflect evaluations and treatments regarding the patient's cigarette smoking. Identification of the cigarette smoker is a relatively easy step and usually can be accomplished during history taking.

The treatment of hypertension is usually precise and so should be the treatment of cigarette smoking. Ask the smoking patients to explain specifically what the dangers of cigarette smoking are, and then correct any mistaken beliefs. It is not unusual for smokers to be quite vague in their understanding of the dangers of cigarette smoking. Next, ask smokers about the benefits of quitting and correct erroneous beliefs. Smokers frequently have little exact knowledge of the benefits of quitting. Encourage the patient to make up his mind to quit and then to do it. Make it clear to patients that you recommend they quit. Remember, more than 30 million smokers have quit.

Follow smoking behavior during subsequent visits. Do not expect miraculous cure rates. Remember, the study by Russell, *et al.* had a 19% quit rate. Be encouraged even if only one patient quits. Recidivism is common. When it occurs suggest to patients that they proved they can quit once; now the problem is quitting for good. Behavior change can come easily or only after a difficult struggle.

Smoking is a chronic disease, so manage it as you would other chronic diseases by following its activity during subsequent visits. For the smoker who wants to quit but has difficulty doing so, refer to local programs. I refer a few willing patients to a psychiatrist-hypnotist or a weekly clinic run by the local affiliate of the American Lung Association. Some patients who continue to have difficulties with quitting are encouraged to use less hazardous tobacco products such as inhaled snuff or a pipe.

Patients who have smoking-related problems such as angina pectoris or chronic obstructive pulmonary disease may be more motivated to quit than others. For patients who fear weight gain with cessation, recommend reasonable diets or refer them to a dietician if weight gain occurs.

Use your office to communicate to your patients information about smoking and discourage smoking by the presence of anti-smoking pamphlets and posters and signs requesting patients not to smoke. Encourage staff to act as exemplars by quitting or at least by not smoking around patients.

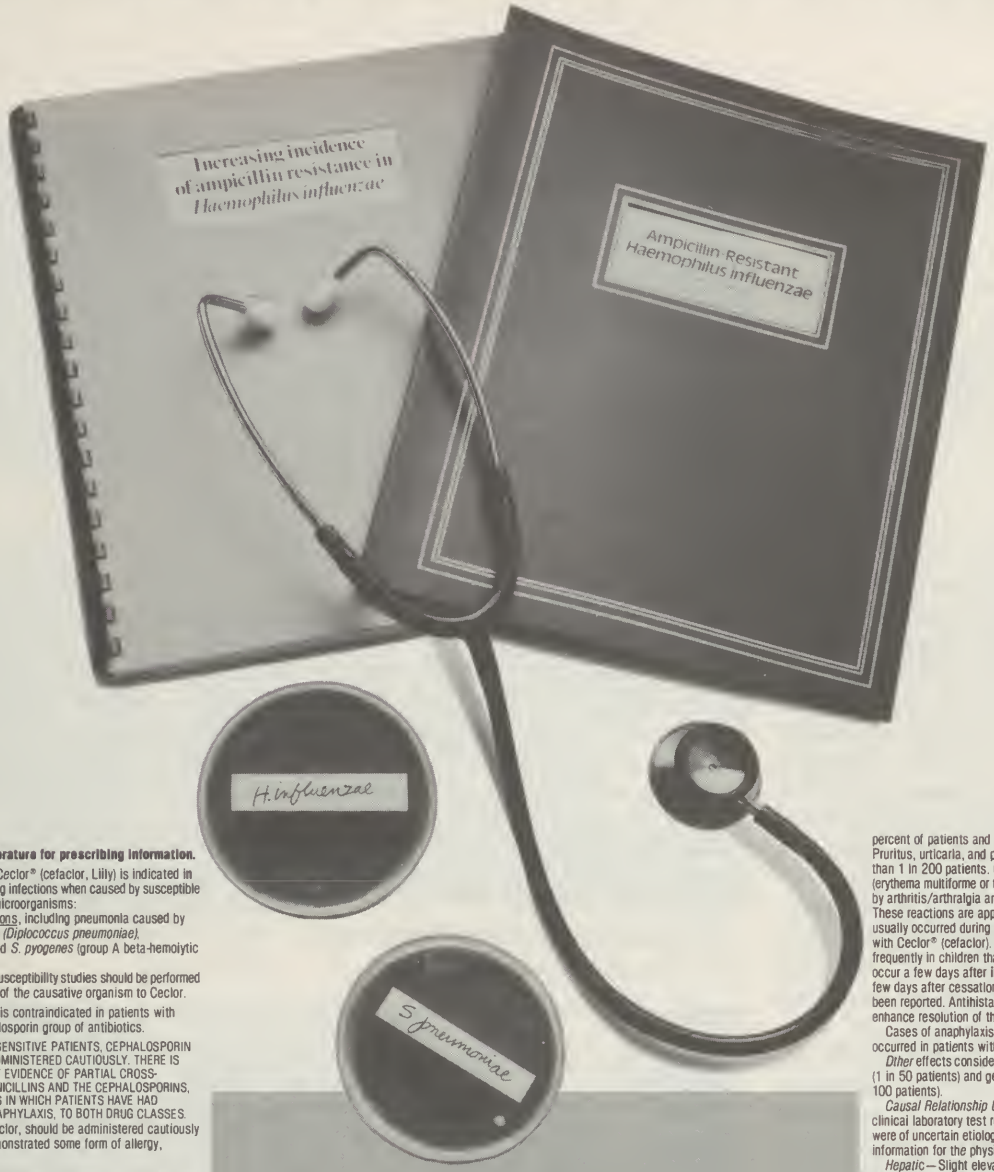
Summary

The benefits of smoking cessation are significant. There are millions of ex-smokers. Most smokers are interested in quitting, but most do not remember their physicians advising them to quit or cut down. Physicians who develop management strategies can play an important role in helping their smoking patients to become ex-smokers.

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Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

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Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae,* and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coomb testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

As with other broad-spectrum antibiotics, colitis, including rare instances of pseudomembranous colitis, has been reported in conjunction with therapy with Ceclor.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor® (cefaclor). Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). {100281R}

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

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Radiation of Pituitary Adenomas

HOWARD W. KAYS, M.D.
Indianapolis

PITUITARY ADENOMAS, the most common benign tumors treated with ionizing radiation, comprise 10% of intracranial neoplasms. They are classified microscopically on the basis of secretory granules, staining characteristics, and cells from which they derive. Chromophobe adenomas comprise 53-78% of all pituitary adenomas, eosinophilic 13-32%, and basophilic 7-8%.[1,2,3]

The "nonfunctioning" chromophobe adenomas present with temporal hemianopsia or superior temporal quadranopsia from optic nerve compression in 77-90% of the cases, 80-95% of eosinophilic adenomas, and 40-50% of basophilic adenomas.[4,1] Only after sufficient growth to compress normal cells, do chromophobe adenomas cause signs of hypopituitarism such as oligomenorrhea in 67%,[4] decreased libido in 19-48%,[4,5] and hypothyroidism in 18-28%.[3,5]

Pituitary insufficiency is infrequently recognized in the postmenopausal female and elderly male. Pituitary adenomas are rare in children but may cause lack of sexual maturation, cessation of linear growth, and retarded bone age. Radiographic enlargement of the sella tursica occurs in 90-98% of chromophobe adenomas, 80-95% of eosinophilic adenomas, and 40-50% of basophilic adenomas. Earlier diagnosis by CT scan may reduce the incidence of sellar erosion. Headaches are reported in 46-50% of pituitary adenomas.[3,4]

Hypersecretion of prolactin may be found in more than 30% of chromophobe adenomas.[6] Galactorrhea indicates CT scan. Serum prolactin can be useful in following the progress of tumor therapy even in the absence of galactorrhea.[9]

Growth hormone hypersecretion from eosinophilic adenomas may cause gigantism if it occurs before pubertal closure of epiphyses or acromegaly in adults. Cardiomyopathy, diabetes, hypertension, and arthritis also occur.

Hypersecretion of ACTH occurs from basophilic adenomas. In children the earliest and most striking finding is arrest of linear growth. Easy bruisability, muscle wasting, truncal and facial obesity, hypertension, osteoporosis and diabetes are just a few of the signs of Cushing disease.

Growth, compression effects, and hypersecretion may be arrested or reversed by surgery, radiation, or a combination of both. Hormone replacement of pituitary insufficiency may be necessary before treatment or after surgical ablation.

Sheline reported 20 recurrences of 34 chromophobe adenomas treated by surgery alone, for a recurrence rate of 59%. Seven of the 34 died within one month of surgery, for a mortality rate of 20%. Only seven treated with surgery alone survived free of disease. One-half the patients reoperated had cystic tumors.[5]

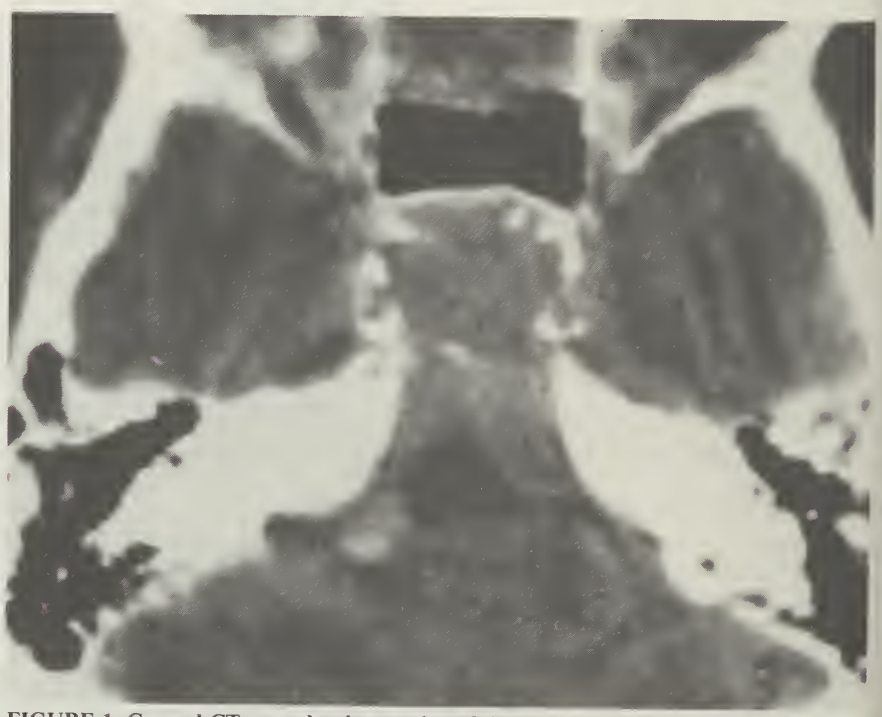


FIGURE 1: Coronal CT scan showing erosion of the sella tersica by pituitary adenoma.

From the Department of Radiotherapy, Indiana University School of Medicine, 1100 W. Michigan St., Indianapolis, Ind. 46223.

Acknowledgment: Vivian Kays, manuscript preparation.

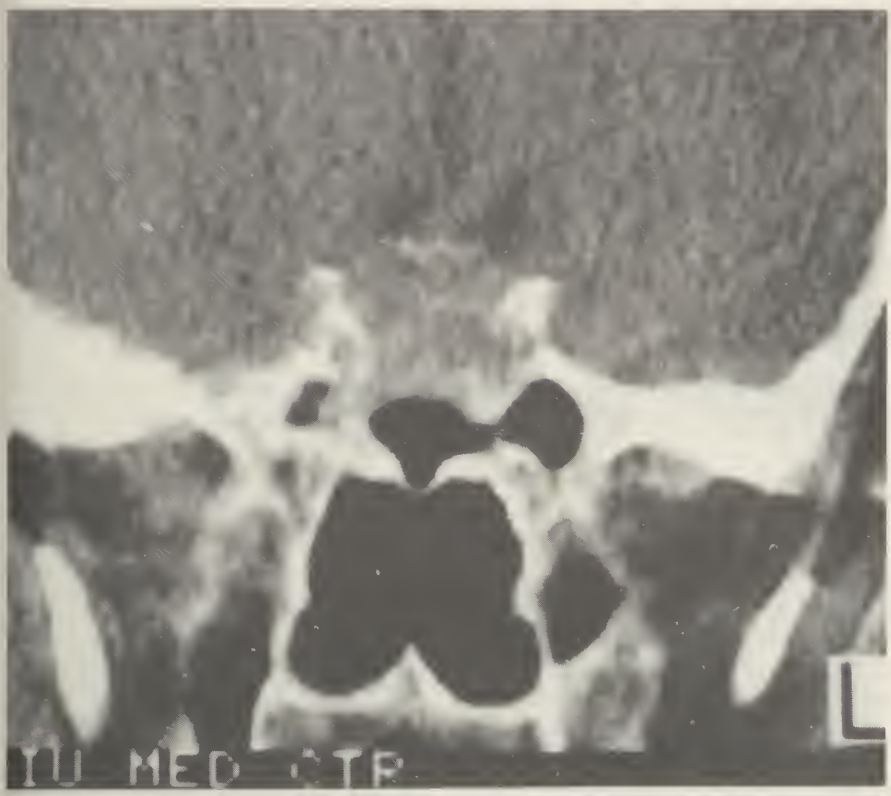


FIGURE 2: Transverse CT scan showing invasion into the sphenoid sinus by pituitary adenoma.

Hayes reported a recurrence rate after surgery of 55% (16/29) compared to 21% (4/19) of chromophobe adenomas given postop radiation.[2]

Emmanuel reported a four-year recurrence-free rate of 30% with surgery alone for chromophobe adenomas, compared to 93% for postop radiation.[8]

Urdaneta reported 83% five-year control with surgery and postop radiation of 34 patients. Of 32 treated with radiation alone, 12 recurred and seven were salvaged by surgery for an overall control rate of 84%. The 20 patients controlled by radiation alone were spared the expense, complications, and mortality of surgery at the base of brain. Patients with suprasellar extension were more likely to fail radiation than those without extension.[3]

Pistenma reported control rates of 84.9% with postop radiation (28/33) and 86.2% (25/29) for patients controlled with radiation (17) and surgical salvage (8). Patients selected for radiation alone had less visual deterioration prior to treatment than those selected for surgery and postop radiation. The improvement in visual field deficits was 46% in radiation alone patients compared to 83% in the postop group. Patients with visual impairment have a higher incidence of permanent impairment if treated by radiation alone than if decompressed by surgery first. Pistenma recommended radiation alone for those with no more than minimal depression of visual fields, corrected acuity of 20/30 or better, and suprasellar extension of 1 cm or less. More severe findings should have surgery first.[4]

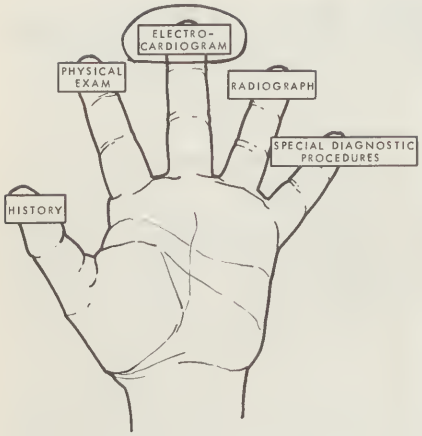
Chang and Pool recommended surgery initially for patients with extensive suprasellar extension, large visual field defects with encroachment on the macula, visual acuity of 20/200, optic atrophy, intracapsular hemorrhage or cystic tumor.[9] The frequency of cysts in chromophobe adenomas ranges from 10-40%.[5]

Aristizabal reported one patient with progressive blindness, one with unilateral optic atrophy, and one death from brain stem necrosis for the highest radiotherapy complication rate of 6% (3/45). The patient with progressive blindness was one of four treated with 250 rads per day, suggesting 200 rads per day or less reduces complications.[10] Dividing the daily dose among at least two fields with all fields treated each day reduces complications, as do deeper penetrating higher energy beams.

A disadvantage of radiotherapy is slower shrinkage, slower decompression, and slower reduction of hypersecretion. Surgery offers faster decompression of optic nerves when visual fields are impaired.

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THE FIVE FINGERS OF CARDIOLOGY

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The Five-Finger Approach to Cardiac Diagnosis was conceived by W. Proctor Harvey, M.D., of Georgetown University, and further developed by J. Willis Hurst, M.D., of Emory University into its present form: The integration of all five approaches is diagrammed into a "fist" of cardiac-diagnosis. This feature is presented as a self-assessment, emphasizing current and innovative diagnostic and therapeutic principles.

THE PATIENT is a 60-year-old woman with known aortic stenosis, who presented with severe dyspnea, weakness, and moderate dependent edema. The patient had taken unknown quantities of digitalis. Physical examination demonstrated left ventricular hypertrophy, a prominent systolic ejection murmur, and diminished carotid pulsations, characteristic of significant aortic stenosis. The patient was dyspneic at rest. The heart rate was accelerated to 145, and the blood pressure depressed to 90/60. Pulmonary rales, jugular venous distention, and peripheral edema were evident.

QUESTION: Interpret the electrocardiographic rhythm tracing *(Figure 1—top)* What maneuver might you perform to facilitate interpretation of the rhythm?

ANSWER: A tachycardia of supraventricular origin is evident, at a rate of 145 with a narrow QRS complex. The rate is regular. This could represent sinus tachycardia, paroxysmal atrial tachycardia, or atrial flutter. Atrial fibrillation can be excluded by the regular rhythm. Sinus P waves are not identified; the rate is slower than expected with paroxysmal supraventricular tachycardia; thus atrial flutter is the most likely explanation. A carotid sinus massage (CSM) *(Figure 1—bottom)* increases the degree of AV block, so that the flutter waves are more apparent.

QUESTION: What is appropriate therapy? Consider the agent, dosage, mode of action, and side effects.

ANSWER:

1. Digitalis could be provided, yet the patient's state of digitalization is unknown.

2. A beta blocker could be provided, and this would constitute acceptable therapy. However, the patient already exhibits evidence of hypotension and heart failure.

3. Verapamil, a new calcium antagonist, is known to decrease the ventricular response to either atrial flutter or atrial fibrillation in 80-85% of patients. When given intravenously, the ventricular rate almost invariably decelerates within minutes. Though the recommended dosage is 5 mg over two minutes, this patient already presented evi-

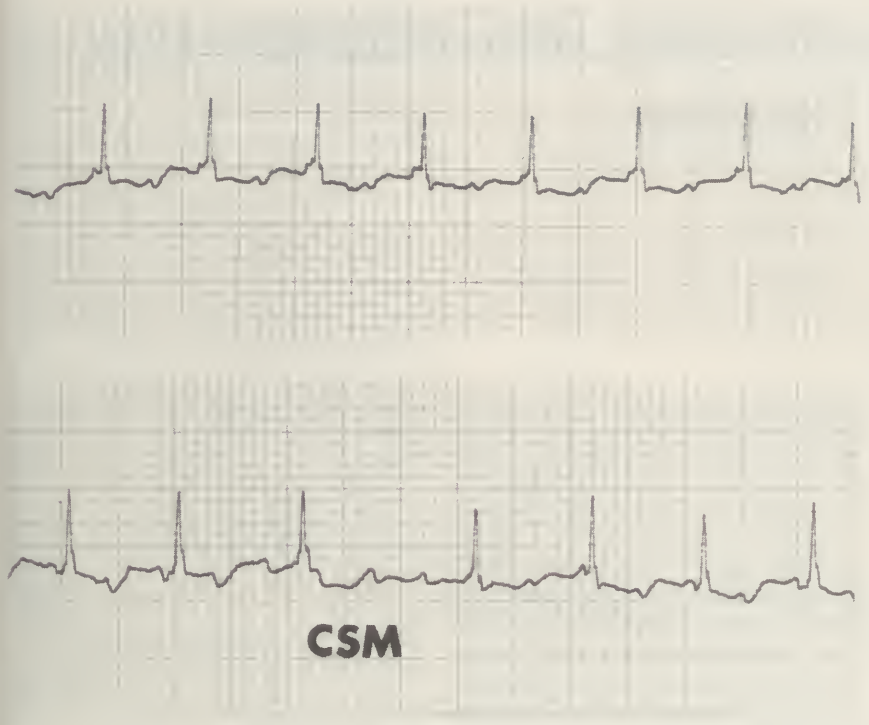


FIGURE 1

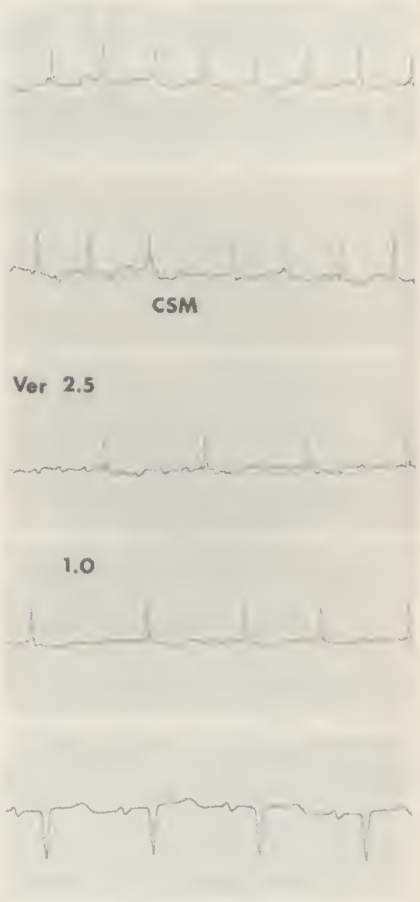


FIGURE 2

dence of hypotension and heart failure; consequently, a lower dose of Verapamil was administered, which increased the AV block to 4:1, to decelerate the ventricular response to 70 *(Figure 2)*. As the rate began to accelerate, an additional 1 mg was administered intravenously, which converted the atrial flutter to atrial fibrillation, with further deceleration in ventricular rate; minutes later, the rhythm converted to normal sinus.

Electrophysiologic studies of the AV node and SA node indicate that conduction is dependent upon a calcium current. The calcium antagonists, by blocking the transmembrane flux of calcium, alter this current in such a way to slow conduction and prolong the refractory period in the AV node, thereby slowing the ventricular response to the atrial tachyarrhythmia. Verapamil is even more successful in paroxysmal supraventricular tachycardia, when, after intravenous administration, the rhythm converts to sinus in nearly 90% of patients.

By blocking calcium flux, the calcium antagonists can depress myocardial contractility, to exaggerate heart failure. By blocking calcium flux in peripheral smooth muscle, vasodilatation results, to possibly potentiate any hypotension. Complete heart block may also develop with a calcium antagonist.

Additional actions and indications of the calcium antagonist will be discussed in the next "Five Fingers of Cardiology."

The Effect of Nonsteroidal Anti-Inflammatory Agents on Renal Function

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NONSTEROIDAL anti-inflammatory agents (NSAIA) have been used widely for a number of arthritides including rheumatoid and osteoarthritis, ankylosing spondilitis, gout and lupus erythematosus. The compounds include aspirin and indomethacin (Indocin), plus newer agents such as ibuprofen (Motrin), naproxen (Naproxyn), tolmetin (Tolectin), fenoprofen (Nalfon), and sulinduc (Clinoril). This class of compounds can profoundly influence renal function, a fact not generally appreciated.[1,2]

Reports are appearing in the literature with increasing frequency documenting complications following the use of these drugs. Some represent disruption of normal renal function due to changes in blood flow and electrolyte metabolism and are readily reversible with discontinuation of the drug.[3,4] The remainder reflect more serious injury to the kidney with potential for long-term effects on renal function.[5-9] An appreciation for the physiologic consequences of NSAIA administration and clinical situations where these compounds are better avoided would reduce the untoward effects of the drugs.

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Physiology

NSAIA are potent inhibitors of renal prostaglandin synthesis and have major effects on renal blood flow, glomerular filtration, electrolyte reabsorption, renin secretion, and renal conservation of water. Prostaglandins are formed in renal cortical and medullary cells and appear to exert their major influence at or near the site of synthesis. The compounds are not stored, but are formed from arachidonic acid (AA) in the cells in response to a specific stimulus (*Figure 1*).

AA is stored in the form of phospholipid esters and released by cellular lipase. This step is inhibited to a variable degree by glucocorticoids (dexamethasone, prednisone). AA is converted to the various prostaglandins by the action of a series of enzymes collectively termed prostaglandin synthetase. This step is inhibited by the NSAIA. PGI_2, PGE_2, PGD_2 are potent vasodilators, while thromboxane A_2 and PGF_2 are vasoconstrictors.

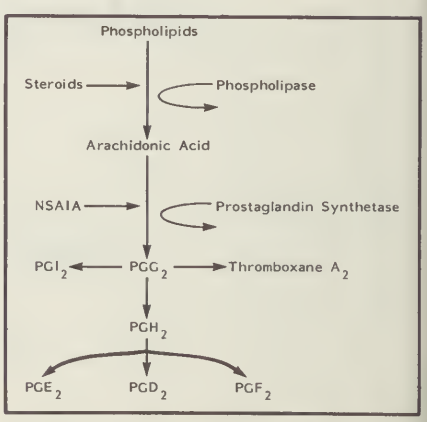


FIGURE 1: Renal conversion of arachidonic acid to prostaglandins and thromboxane.

Experimental studies indicate renal effects of the prostaglandin are mediated through both direct and indirect mechanisms (*Figure 2*).

Prostaglandins appear to serve an important role in maintaining renal vasodilation and ensuring adequate renal blood flow. Inhibition of prostaglandin synthesis results in renal arteriolar constriction, a decrease in renal blood flow and consequently a reduction in the glomerular filtration rate (GFR).

A decline in GFR leads to increased water and electrolyte reabsorption in the proximal tubule. Chloride reabsorption in the distal tubule, particularly the ascending limb of the loop of Henle, is reduced by a direct effect of prostaglandin on the tubular epithelium. A reduction in prostaglandin production

leads to increased chloride and sodium reabsorption. The composite effect of reduced prostaglandin production is a reduction in GFR and increased electrolyte reabsorption in both proximal and distal segments of the renal tubule.

Prostaglandins directly stimulate renin secretion by the kidney, which in turn increases serum aldosterone concentration. Aldosterone promotes secretion of potassium in the distal tubule and collecting duct by a sodium-for-potassium exchange mechanism. Aldosterone thereby helps in maintenance of normal serum and total body potassium concentrations. Inhibition of aldosterone production will lead to potassium retention and hyperkalemia.

Antidiuretic hormone (ADH) increases the permeability of the collecting tubule to water and increases water reabsorption. Prostaglandins block the effect of ADH on the collecting tubule reducing water absorption and results in the excretion of dilute urine. A reduction in prostaglandin activity in the collecting tubule leads to increased water absorption and a reduction in urine volume.

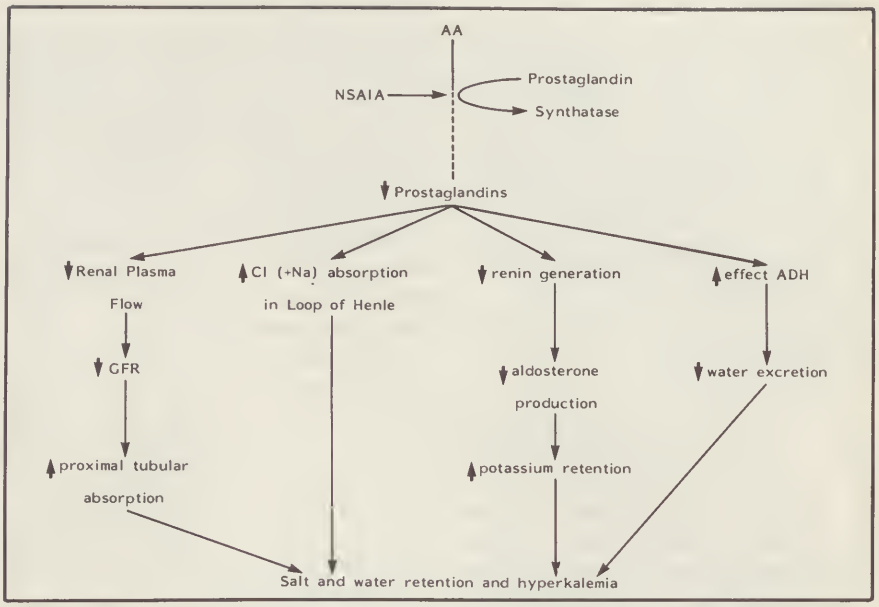


FIGURE 2: Renal functional changes following reduced prostaglandin synthesis.

Clinical Studies

The effects of NSAIA on renal function have been investigated in several clinical situations, including normal adults and hypertensive, or azotemic, patients. Renal plasma flow is reasonably well maintained in the normal individual, but a significant decline in glomerular filtration occurs after NSAIA. The reduction in GFR is augmented by dietary sodium restriction. Sodium and chloride excretion is uniformly reduced and a reduction in potassium excretion occurred in some studies following NSAIA.[10-12] Furosemide induced sodium and chloride excretion was significantly reduced after ingestion of NSAIA.[13,14]

Indomethacin blunted the hypotensive and naturetic effect of furosemide in normal subjects, suggesting that the usefulness of this diuretic in the hypertensive patient may be reduced by the concomitant administration of NSAIA. The mechanism by which indomethacin interferes with the diuretic effects of furosemide is unknown at present. Plasma renin activity and aldosterone levels are reduced in both basal and stimulated states such as occur following volume contraction or diuretic administration.[11,13] NSAIA reduce prostaglandin production, allowing unimpeded ADH activity and results in the excretion of a more concentrated urine.[12]

Administration of NSAIA in the setting of pre-existing renal disease or in clinical situations where there is a reduction in effective circulating volume such as congestive heart failure or cirrhosis may be profoundly detrimental. Renal function in chronic stable renal failure may deteriorate, resulting in increased blood urea and creatinine concentrations, sodium retention, and edema formation.[15] The diuretic effect of furosemide on sodium excretion is reduced in this setting.

Most of the clinically available NSAIA have the same potential for further impairment of renal function in the setting of chronic renal failure.[16] Hyperkalemia in renal failure may occur following administration of NSAIA and may reach life threatening levels.[3,4] Presumably, this is due to the inhibition of prostaglandin synthesis with a reduction in plasma renin activity and serum aldosterone levels resulting in potassium retention. Discontinuation of the drug results in a decline in potassium levels.

The sodium retention that occurs with ingestion of NSAIA is increased in situations where renal plasma flow is reduced as is the case in heart failure or cirrhosis even in the presence of normal renal structure. Patients with congestive failure may experience marked sodium retention and worsening cardiac and renal function as a result.[17] Similarly, patients with cirrhosis may experience a major reduction in renal function, sodium retention, and deterioration of water and electrolyte homeostasis.[18]

Acute Renal Failure

The preceding abnormalities represent alterations of renal function with negligible effect on renal structure. However, reports are appearing more frequently describing instances of acute renal failure developing with proteinuria or in the setting of nephrotic syndrome following ingestion of NSAIA. The problem does not appear to be related to the duration of therapy or to the dose of drug.

Renal failure may develop slowly without outward clinical signs of a hypersensitivity reaction. Urinalysis may reveal hematuria and pyuria in addition to proteinuria. Some patients have an increase in blood eosinophil counts. Histologic examination of the renal tissue reveals the appearance of an acute interstitial nephritis consistent with a drug-induced reaction. Discontinuation of the drug results in gradual disappearance of the proteinuria and a return toward normal levels of renal function.

The role of corticosteroids in hastening recovery is not well established. The interstitial nephritis is not limited to a particular chemical group of the NSAIA. The same histologic picture has been noted for indomethacin and tolmetin (indole derivatives); fenoprofen (proprionic acid base), and phenylbutazone (pyrazolone compound).[5-9,19] Therefore, any patient who develops proteinuria or an active urinary sediment (hematuria or pyuria) while taking these drugs should be advised to discontinue the drug.

Hypertension

Considering the number of hypertensive patients in the country and the widespread use of these drugs, particularly aspirin, the potential for blunting the effectiveness of antihypertensive therapy in large numbers of patients is considerable. Reduced prostaglandin synthesis can cause a measurable increase in blood pressure.[5] Moreover, sodium and chloride excretion is inhibited. Sodium retention may cause plasma volume to expand and aggravate the hypertension. The effect of diuretics in this setting may be blunted as was demonstrated for furosemide.

The effect of NSAIA on diuretics which are active at other sites along the nephron remains to be evaluated. The use of these drugs in the hypertensive patient must be employed with caution and patients advised to use nonprescription NSAIA with care to ensure that control of the hypertension is not compromised. This is particularly important with regard to aspirin usage since it is considered a trivial drug by the public.

NSAIA are widely used drugs and are generally considered safe and effective compounds. The effect of the drugs on renal prostaglandin metabolism and consequently on renal function is becoming increasingly apparent and the importance of the relationship requires greater appreciation on the part of physicians and patients. The changes induced in renal function are more pronounced in the setting of preexisting renal disease, heart failure, or cirrhosis. Consumption of these compounds may precipitate deterioration in patients with compromised but stable renal, cardiac, or hepatic function, or may make the treatment of hypertension more difficult in a previously well controlled patient.

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Hip Joint Replacement

Consensus Report

AFTER 12 years of experience with the surgical technique of total hip replacement, experts in the field find the success rate already gratifying, and improving even more with the advent of better biomaterials, techniques and design.

At a Consensus Development Conference sponsored by the National Institute of Arthritis, Diabetes and Digestive and Kidney Diseases, reports indicated a 10-year "success" rate of about 90%, and probability for even higher rates in the future. Where late failures do occur, they usually are due to loosening of the acrylic cement used in the replacement or to breakage of one of the components. The problem is more often associated with surgical technique than with the materials themselves, according to the consensus report. Short-term problems usually are the same as those associated with major surgical procedures generally, e.g., infection and blood clotting.

The conferees recommended that hip joint procedures be performed only by orthopedic surgeons with special expertise, and only in suitably staffed and equipped hospitals where the operation is performed frequently. Corrective replacement of an original prosthesis is functionally satisfactory in only about 60% of the cases due largely to an inadequate bone mass for supporting the new implant, they said.

Patients undergoing the procedure may engage in most normal activities within about three months, the report said. Walking, driving, dancing and the like should be accomplished pain-free and with normal mobility, but "to be avoided are repetitive activities that overload the hip, such as jogging, jumping and racquet sports."

Patients over age 65 account for about 60% of an estimated 75,000 annual hip joint replacements involving about 65,000 persons; those 55 to 65 account for 25%. Osteoarthritis, the greatest single cause of hip joint disfunction, accounts for 60% of the cases.

Courtesy of the "PMA Newsletter," Pharmaceutical Manufacturers Association, March 8, 1982.

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Comparison of Anorectics

	Agent	Amine Classification	Half-life[a]	Variety of Dosage Form	Degree of CNS Effects
Low Abuse Potential	**Diethylpropion**	Tertiary	4-6 hrs.	25 mg tablet, 75 mg controlled-release tablet	Mild euphoria, mild stimulation
	Mazindol	Nonphenylethyl-amine	33-55 hrs.	1 & 2 mg tablet	Mild euphoria, mild stimulation
	Fenfluramine	Secondary	10-30 hrs.	20 mg tablet	Moderate sedation (mild to moderate depression, a side effect, is also sometimes designated as a CNS effect)
	Phentermine	Primary	19-24 hrs	8 & 37.5 mg tablet, 8, 15 & 30 mg capsule, 15 & 30 mg capsule (resin complex), 15 & 30 mg timed release capsule	Mild euphoria, moderate stimulation
High Abuse Potential	**Phenmetrazine**	Secondary	7-9 hrs.	25 mg tablet, 50 & 75 mg prolonged action tablet	Marked euphoria, marked stimulation
	Amphetamine	Primary	10-30 hrs.	Various	Marked euphoria, marked stimulation

[a]Delayed release characteristics of certain dosage forms must also be taken into account.

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Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect: rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personalty changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIDNS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIDNS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Oryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DDSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Oospan (diethylpropion hydrochloride) controlled-release: One 75 mg tablet daily, swallowed whole, in midmorning Tenuate is not recommended for use in children under 12 years of age.

OVERDDSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine*) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of June, 1980

Reference: 1. Abramson R, Garg M, Cioffari A, and Rotman PA; An Evaluation of Behavioral Techniques Reinforced with an Anorectic Drug in a Double-Blind Weight Loss Study. J Clin Psych 41:234-237, 1980.

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DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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New information from
Indiana Division
American Cancer Society, Inc.
4755 Kingsway Dr., Suite 100
Indianapolis 46205

CANCER CORNER

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The Facts About Cancer

Dr. Charles F. McKhann, Professor of Surgery and chief of the Division of Surgical Oncology, Yale University Medical School, has written an important sourcebook for cancer patients and their families.

The Facts About Cancer helps unravel the mystery surrounding the disease so that those affected can actively participate in their own care and share in making important medical decisions.

Written in non-technical language and offering sympathetic encouragement on every page, this guide examines the psychological, physical, and financial impact of cancer and explains how to best meet these challenges. It includes dozens of interviews with cancer patients, their families, and members of the health profession who have dealt extensively with cancer patients.

In addition, Dr. McKhann provides a wealth of information about the diagnosis and treatment of cancer and tells readers how to ask their doctors the right questions and interpret the answers, including:

- an explanation of what cancer does and how victims can fight back;
- an inside look at the medical profession with suggestions on how patients can get the most out of the services available;
- an overview of the most common types of cancers;
- answers to frequently asked questions; and
- a glossary of common medical terms.

Myths

Bruises, bumps cause cancer.

Cancer is contagious.

Fluoridated water causes cancer.

Cancer-Related Checkups: Guide to Increased Cancer Risks

Although some people complain that almost everything causes cancer, that isn't so. Cancer risk factors vary in their effect on individuals. Hereditary makeup and exposure to certain substances could increase the chances of getting cancer.

This guide will help people understand what is known, what is suspected and what is myth. It is not complete, but identifies some factors that offer a perspective on risks . . . Things that can be changed; things a person can't change but should be aware of. It is available from your local ACS unit.

Factors	**Known**
Age	Risk increases with age.
Alcohol	Increased risk with excessive use, especially if you smoke.
Asbestos	5-fold increased risk of lung cancer if occupationally exposed and if you smoke.
Cigarettes	10-fold increased risk of lung cancer.
Cigars & Pipes Chewing Tobacco	Increased risk of mouth, larynx, and esophageal cancer.
D.E.S. (diethylstilbestrol)	Increased risk of vaginal cancer for daughters of women who took DES during pregnancy.
Estrogen for menopause	Increased risk of endometrial cancer with long term use.
Family history of breast & colon cancer	Increased risk for these cancers.
Occupation	Exposure to industrial agents (nickel, chromate, asbestos, vinyl chloride, etc.) increases risk.
Radiation	If you've had radiation therapy early in life, there may be increased risk, which your doctor will evaluate.
Sun	Increased risk with overexposure and no sunscreen protection.
Factors	**Suspected**
Diet	May be related to cancer of several sites. Various elements of diet are being studied.
Food Additives	Some, like nitrites, are being studied.
Occupation	In addition to the known industrial agents, certain other chemicals and dusts are being studied.
Pesticides, Fungicides	Potential risk if protective equipment is not used.

Hospitals, Radiologists and X-rays

Court Action

A hospital requirement that a radiologist review all X-rays taken in the hospital was not an unlawful price-fixing or tying agreement, an Indiana appellate court has ruled.

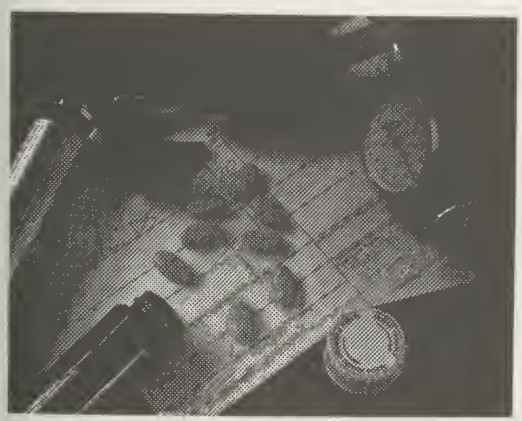
A minor patient was injured in a motorcycle accident and taken to a hospital for treatment. X-rays of his right wrist were taken, and a fracture of his wrist was treated by an orthopedic surgeon. A radiologist reviewed the X-rays that evening and officially confirmed the diagnosis. The radiologist reviewed the X-rays pursuant to hospital policy, which required that each X-ray taken be interpreted by a qualified physician competent in all aspects of radiological services.

All the radiologists who practiced at the hospital were shareholders of a medical corporation. The radiologists did not order the X-rays to be taken, but only interpreted X-rays ordered by other physicians. A bill of $23.50 from the medical corporation was sent to the patient's father, who refused to pay it. A trial court ordered the father to pay the bill, and the father appealed.

Affirming the decision, the appellate court said that the hospital's policy did not violate the patient's right of privacy or the father's right to direct his son's medical treatment. The appellate court rejected the father's contention that the agreement was an exclusive contract that established an illegal monopoly and tying arrangement. The court said there was no evidence that the medical corporation had an exclusive contract. Since it was a non-exclusive agreement, it did not amount to an agreement to fix prices nor give the medical corporation any unlawful monopoly over the interpretation of X-rays at the hospital, the court said.—*Rumple v. Bloomington Hospital,* 422 N.E.2d 1309 (Ind.Ct. of App., July 13, 1981)

Courtesy of *The Citation,* Jan. 15, 1982.

GOOD NEWS FOR DOCTORS



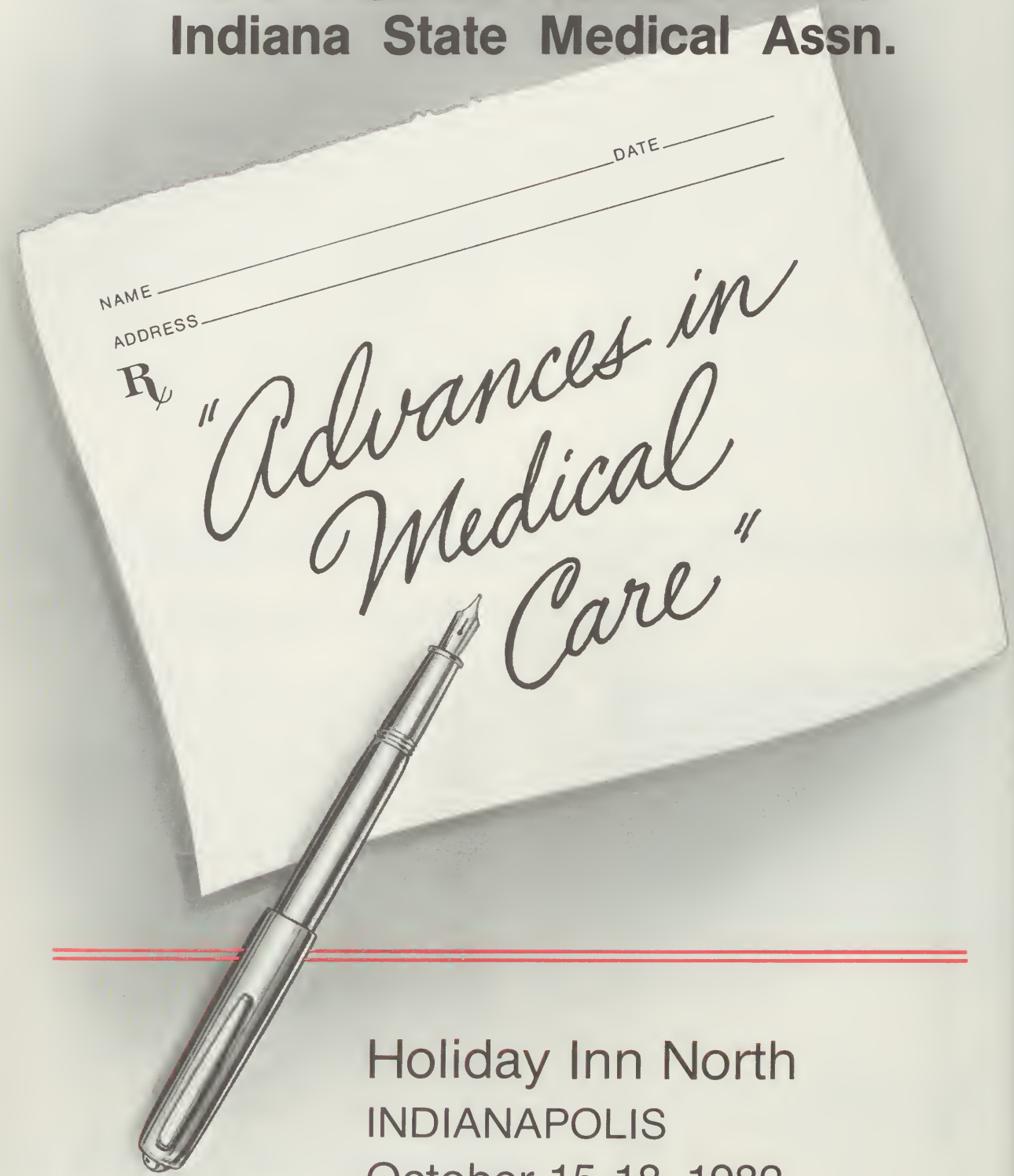
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PUBLIC HEALTH NOTES

Using Community Resources to Care for the Aging

Hoosiers are living longer, but are they healthier and happier? Many are, but 20% of those over 65 years of age are extremely or greatly impaired; in fact, 3.5% require institutionalization. At this time Indiana lacks (as do most states) a system for care of the aging which utilizes and coordinates all available community resources. This is an acute problem when we realize that the concept of long-term care is changing from one which perceives the institution as the place for providing such care to one which perceives the home as the most effective (and least costly) location for the provision of services to a great many individuals.

As years are added to lives, there is greater need to provide continuous, comprehensive health care for those who require it. Not only is treatment for the older adult a needed service, but health surveillance and health maintenance programs should be in place within the community if the older adult is to remain a healthy, self-sustaining if not a contributing member of society.

Primary health care provides the key to accessibility to the system and coordination of health care services within the system. Studies show that more than four million physician visits per year are generated by individuals 65 years of age or more, and the elderly account for 29% of the health care dollars spent. Today, there are more than half a million "seniors" (65 years of age plus) in our population and by 1985, experts predict that a 7.6% increase will occur in this group.

For those who are already ill and need services to stabilize the condition or slow down the rate of decline, a viable alternative to use of institutions is home care. Services of home health agencies are available in 68 of Indiana's 92 counties. During 1980, there were 18,747 patient services provided by these agencies with services ranging from a minimum of two (nursing, physical therapy, speech therapy, home health aide, occupational therapy, nutritional, social, respiratory, and others) to a maximum of nine with an average of 3.5 services per agency.

Home health services, of course, follow a written plan of treatment which is established by the physician and is periodically reviewed and supervised by the physician. Families are far more eager to accept some health care responsibilities if home health services are routinely available to them. Also, there is convincing evidence that such care may not only postpone costly institutionalization but possibly prevent it. This service also enables many older adults to live independently in their own homes, where most of them prefer to be. (Fort Wayne Visiting Nurse Service, Inc., pioneered in this field in the Sixties by initiating a program which included not only nursing care in the home, but provided the services of "housekeeping aides" as well.)

Work with the older adult has shown that teaching, support, and follow-up are necessary components in the delivery of health care services. It is not uncommon to find that the older adult is under the care of several physicians. More than one physician may prescribe the same or additional medication which can cause serious adverse interactions. Another problem is frequent noncompliance with the medical regimen. Also, older patients may treat themselves with over-the-counter drugs, often as a result of reduced income and higher costs of medical care.

The local health department nursing service is another community resource that is often under utilized by physicians because of insufficient understanding of available activities or low commitment to prevention and health maintenance.

The functions of the health department nurse include: counseling on which liquids, food, or other drugs to avoid while taking a particular drug; ensuring that the client understands the use of medicine and adverse reactions; interpreting therapeutic diet prescribed; periodically assessing the health needs of the individual; establishing and maintaining communication with the physician; and providing other public health related activities.

As you find that more and more of your patients are over age 65, it is our hope that you will become familiar with the services provided by the wide variety of home health agencies and public health nursing services and utilize them whenever possible.

For more information, contact Mrs. Geraldine Wojtowicz, Director of Nursing, Indiana State Board of Health, at 317/633-8461.

FUTURE FILE

Milwaukee Postgrad Course

The Medical College of Wisconsin will hold its 15th Annual Postgraduate Course in Gynecological Pathology, Cytogenetics and Endocrinology from June 17 to 23, 1982 at the Pfister Hotel and Tower, Milwaukee. Limited to 150 registrants. The $500 enrollment fee, which includes 68 selected 35mm slides, is non-refundable. CME rating is 42 hours credit with AMA and AAFP.

Write to Richard F. Mattingly, M.D., 8700 W. Wisconsin Ave., Milwaukee 53226.

Internal Medicine Review

"An Intensive Review of Internal Medicine" will be conducted Aug. 16-21 by Jefferson Medical College and the University of Delaware on the Newark Campus of the University of Delaware.

The course carries 55 hours of Category 1 AMA credit and is designed for contemporary review and for those physicians who contemplate writing the American Board of Internal Medicine Certifying Examination.

Write Sylvia Brocka, 2800 Pennsylvania Ave., Wilmington, Del. 19806 or call (302) 738-8151.



"I can see right through you, Bruce."

Indiana University CME Courses

Clinical Electrocardiography

Indiana University School of Medicine will present a one and one-half day clinical electrocardiography course on May 25 and the morning of May 26 at the medical Center. This course will review the continuing role of electrocardiography in the diagnosis and management of ischemic heart disease and is designed for the general internist and the family physician. Preregistered participants will be sent a set of "unknown" ECGs to review prior to the course. School of Medicine Alumni Day activities will begin at 12:00 noon on May 26 immediately following completion of the course.

Diabetes Update

Indiana University School of Medicine and the Indiana Affiliate of the American Diabetes Association will present "Diabetes Update—1982" on June 5 at the Holiday Inn North. Speakers will include members of the Diabetes Research and Training Center and three guest authorities. The program is supported by an educational grant from Pfizer Laboratories, and there is no registration fee.

Neonatal Perinatal Medicine

Indiana University School of Medicine, in cooperation with Porter Memorial Hospital in Valparaiso, will present the Fifth Annual Symposium on Neonatal Perinatal Medicine for the Practicing Physician on June 9 at the Merrillville Holiday Inn. The program is designed for pediatricians, obstetricians, family physicians, and pediatric and obstetrical nursing personnel. Topics will include neonatal retinopathy, thyroid screening, fetal monitoring in labor, hypertension in pregnancy, blood gas monitoring, and the sudden infant death syndrome.

Family Practice, Part II

Indiana University School of Medicine will present the second half of its Family Practice Review course June 15-17 at the Sheraton West Hotel, Indianapolis. Areas of emphasis will include internal medicine, dermatology, otorhinolaryngology, ophthalmology, urology, and orthopedic surgery. Workshops will be presented and a course syllabus will be provided.

For additional information, please call the Division of Continuing Medical Education, (317) 264-8353.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Conference on Breast Cancer

"The Cincinnati Conference on Cancer—Breast Cancer" will be conducted Nov. 5-6 at the Westin Hotel, at Fountain Square, Cincinnati. Program is designed for oncologists, primary care physicians and radiation therapists. The sponsor is Bethesda Hospital & Deaconess Association. The registration fee is $145, with 50% discount for residents in training. Address Thomas J. O'Connor, 619 Oak St., Cincinnati 45206.

Kentucky OB-GYN Update

The Eleventh Update in OB-GYN will be conducted June 2-4 at the Hyatt Regency Hotel, Lexington, Ky. The course is accredited under Category 1. Write to Frank R. Lemon, M.D., College of Medicine, Lexington, Ky. 40536.

Hyperbaric Oxygen Conference

The 7th Annual Conference on the Clinical Application of Hyperbaric Oxygen will be held June 9-11 at the Disneyland Hotel, Anaheim, California. For full info, write to Baromedical Department, Memorial Hospital Medical Center, 2801 Atlantic Ave., Long Beach, Calif. 90801, or phone (213) 595-3613.

Clinical Neurology Symposium

The fifth annual Symposium on Contemporary Clinical Neurology sponsored by Vanderbilt University will be held July 27-31 at the Palmetto Dunes Hyatt Resort, Hilton Head Island. For info write to Joan Sullivan, Department of Neurology, Vanderbilt University School of Medicine, Nashville, Tenn. 37212.

Kidney Disease Update

"Kidney Disease Update" will be the subject of a CME conference at Bethesda Hospital, Cincinnati, Oct. 29-30. The course carries 10 hours of Category 1 credit, and is oriented to primary care physicians. Write to Thomas J. O'Connor, 619 Oak St., Cincinnati 45206.

ACS National Conference

"The Primary Care Physician and Cancer" is the subject of a National Conference to be conducted by the American Cancer Society at the Hyatt Regency Washington on Capitol Hill, Washington, D.C., June 24-26. The meeting is qualified for 17.5 hours of credit with the AMA and the AAFP. The correspondent is Nicholas G. Bottiglieri, M.D., 777 Third Ave., New York City 10017.

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BOOK REVIEWS

United States Pharmacopeia Dispensing Information

Copyright 1981. 1,163 pages, paperback, $18.75.

About Your Medicines

Copyright 1981, 593 pages, paperback, $8.95.
Both books are available from USP-DI, 12601 Twinbrook Parkway, Rockville, Md. 20852.

My guess is that many physicians will want one or both of these books for office use. Although they were gotten together by the U.S. Pharmacopeia Convention, made up chiefly of university pharmacology professors and clinical teachers, they are different from the traditional pharmacopeia used by pharmacists in hospitals and drug stores.

The first book gives more abundant and probably less slanted clinical information than is found in the PDR. For instance, the drug-drug interactions are much more clearly presented. In utility for quick and reliable reference in fitting a drug to a given clinical problem, it will take its place along side the PDR and AMA Drug Evaluation volumes. Cost-wise it is, indeed, a bargain.

The smaller book *About Your Medicines* is designed primarily to explain drug usage to patients. It explains what each given medication (trade names are given along with generic terms) is supposed to do when it reaches target tissues. Side effects (minor and major), precautions in use of the drug, the necessity to report to the physician all medicines being taken already, and possible drug vs. drug reactions are also reported.

Because the paperback binding allows for fairly satisfactory flattening of pages, patient information sheets can easily be copied from the book. In the foreword it is stated that such use of a limited number of pages is permissible if the copyright notice which always appears at the bottom of each page is included. The detailed patient information presented in the *About Your Medicines* book is, in my opinion, more easily understood and considerably less "scary" than what is contained in the usual package inserts.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

THE NEXT EDITION of USP Dispensing Information (USP DI) will be available in July 1982 and will be labeled "1983". All new information will be incorporated in the 1983 edition (there will be no 1982 edition). A new publication schedule will start in 1984. The 1983 edition will appear in two volumes. Volume I will contain drug information directed to the physician. Volume II will contain the corresponding lay-language advice for the patient. The 1983 USP DI will cost $37.95.

Rising Infant Mortality in the USSR in the 1970s

Christopher Davies and Murray Feshbach. U.S. Bureau of the Census, Series P-95, No. 74, September 1980. 33 pages, free.

About three fourths of the improvement in human longevity has occurred in the last 80 years. Until recently, the Soviet Union has been a world leader in advancing longevity. Indeed, in the 1950s, life expectancy in the USSR was higher than in the USA. Since 1965, however, Soviet health expenditures fell from 6.6% of their budget to 5.2% in 1978. Not surprisingly, health conditions in Russia have recently deteriorated catastrophically.

This report is based upon information released by the Soviet government. Between 1970 and 1975, infant mortality has risen more than 33% and is more than three times that in Western Europe or the USA. When compared to the 1960 sub sets, nearly every age group in the Soviet Union displayed higher death rates in 1975. Indeed, life expectancy for a Soviet male is now only 62 years. Thus, regarding longevity, the Soviet Union currently ranks with such peers as Jamaica, Costa Rica and Mexico. This decline is astonishing because it is almost impossible to lower life expectancy in today's refrigerated, miracle-drug world. Even World War II did not succeed in lowering Japan's life expectancy!

The next time someone purports that we have a "health care crisis" in America, we might send them a copy of this report. As such, it may also demonstrate the dire consequences to those who seek to cut our own health care budget.

Alan T. Marty, M.D.
Evansville
Cardio-Vascular Surgery

DOUBLEDAY has released *Your Health, Your Moods and The Weather,* by W. S. Kals. His thesis is that the moods and minor mental and physical complaints of the human race are often due to and are under the control of the weather. Also discusses the effect of weather conditions on driving, how to maximize safety in thunderstorms, how to avoid injuries by heat and cold, and how to avoid air pollution while jogging. 251 pages, $14.95.

DELACORTE PRESS has released *Your One-Year-Old.* It is the final volume in the celebrated series by Dr. Louis Bates Ames and the late Dr. Frances L. Ilg, co-founders of Gesell Institute of Child Development. The series is now complete from 1-year-old to and including 6-year-old. The authors are pioneers of a warm, supportive, and positive approach to child rearing. $11.95.

Investigation of Vascular Disorders

Edited by Andrew N. Nicolaides and James S. T. Yao. Copyright 1981, Churchill-Livingstone, New York. 635 pages, illustrated, $89.

This book bridges the gap between clinical evaluation and angiography by showing how best to quantitate the functional state of the peripheral circulation. Besides demonstrating how to document the severity of vascular disease, it will aid in selecting patients for the correct operation. It will also help assess therapeutic results.

Always ennobling its material by reviewing physiological, mechanical, and electronic principles, this book sparkles because it stresses clinical application. Novel methods as well as the classical repertory are presented. The new ^{99m}Tc-plasmin test, for example, promises safer (no hepatitis risk) and faster answers than ^{125}I fibrinogen screening for deep venous thrombosis (DVT). Meanwhile, thermography re-emerges on the clinical horizon: A normal thermogram virtually excludes DVT. Intraoperative B mode imaging is now being used to gauge the severity of lesions and to rule out surgical error after vascular repair.

The prospects for a real advance in preventive epidemiology—through noninvasive investigation of asymptomatic carotid bruits—are well analyzed. Amid the growing sophistication of methods and the unfamiliarity of terms fast coming into widespread use, the general medical reader will welcome the democratic guidance this elegant book provides. Meanwhile, essays like those on computer data management and pharmacoangiographic manipulation to evaluate the significance of stenoses will do much to sharpen the thinking of specialists.

Alan T. Marty, M.D.
Evansville
Cardio-Vascular Surgery

Selected Topics in Venous Disorders: Pathophysiology, Diagnosis and Treatment

D. E. Strandness, Jr. and Brian L. Thiele. Copyright 1981, Futura Publishing Co., Mt. Kosco, N.Y. 209 pages, $29.50.

Since 1550 BC, when lower limb venous disease was first mentioned in the Ebers papyrus, this subject has become a convoluted story in need of unraveling. This primer restores clear order.

Confusing terminology is exposed first. For example, "thrombophlebitis" is not a synonym for "acute venous thrombosis" and "varicose ulcers," as such do not exist. This book then refutes many commonly held beliefs; e.g., lower leg venous perforators do not communicate directly with the great saphenous vein. (It is the posterior arch branch that communicates, and this saphenous branch can be selectively excised, thereby saving the saphenous for a more worthy surgical destiny.) Why oral contraceptives potentiate thrombosis is now blamed on a reduction of factor Xa inhibitory activity, rather than a reduction in antithrombin III.

The fibrinolytic properties of vein walls (arm veins have more than leg veins), drugs that may help soften liposclerosis around ulcer beds, and enzyme therapy for acute ileofemoral thrombosis exemplify the new information presented. The strengths and weaknesses of fibrinogen radioisotope scans have not been clearly defined, and these and other invasive and noninvasive tests are detailed. Whether or not ileofemoral thrombosis originates from calf thrombi is reviewed *in extenso* but left unanswered.

Venographic technique, interpretive pitfalls, and complications are beautifully illustrated. How confusion over thrombogenesis has arisen from the use of different study methods and differences in investigative timing is well elucidated. Varicose veins and a common sense therapeutic rationale based on their various causes are clearly presented. Pulmonary emboli are discussed succinctly. Cursory notice is taken of the promising new venous reconstructive techniques like saphenopopliteal or femoral cross over vein bypass, while those that are doomed to failure like venous valvular repair are put to rest.

In this age of artificial organs and mass screening for rare genetic disorders, common diseases seem like the last medical frontier. Venous disease ranks with the common cold as an area where much dogma and few reliable remedies hold forth. This book dares to question the traditional phlebografitti upon which many of us base our erroneous diagnosis and ineffective treatment.

Alan T. Marty, M.D.
Evansville
Cardio-Vascular Surgery

DOUBLEDAY has a new book, *A Land Beyond Tears,* that is devoted to human insights of and reactions to death. It was written by Barry Neil Kaufman and Suzi Lyte Kaufman, husband and wife, professional writers and playwrights, who teach a unique lifestyle and therapeutic approach called the Option Process. The book "portrays the love that's released in a family when the veil of silence surrounding death is lifted and shows that facing death enhances life for the living as well as the dying." 216 pages, $13.95.

NEWS NOTES

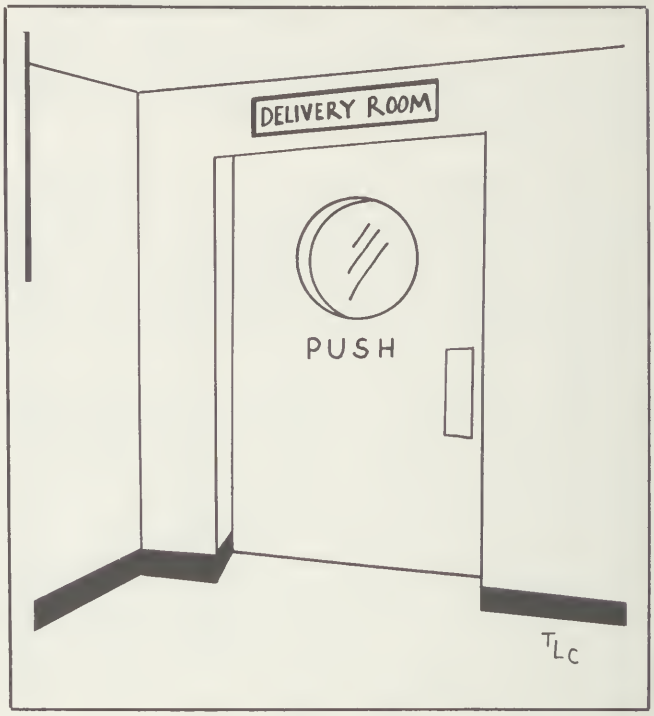
AIT Offers Video Guidance Series

A new educational guidance series for fourth, fifth and sixth grade students is introduced in videocassette form by the Agency for Instructional Television of Bloomington, Indiana.

The programs use open discussion and role-playing to help students understand and make decisions about such topics as safety, first aid, nutrition, self-concept and alcohol use. The series is titled "Who Cares". Eight 15-minute cassettes are available. A teacher's guide accompanies the series and includes program summaries, suggestions for open discussions and follow-up activities, and a bibliography.

'First Aid in the Home' Chart

The Council on Family Health, which has just finished its observance of National Poison Prevention Week, offers a free "First Aid in the Home" chart that tells what to do in the event of poisoning and other household emergencies. Single copies are available free-of-charge by writing to the Council at 633 Third Avenue, New York, N.Y. 10017. Additional copies are available at 30¢ apiece.



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Controlled Drug Conviction Stands

A physician was properly convicted on two counts of conspiracy to sell a Schedule II drug, an Indiana appellate court has ruled.

The physician had co-signed a note for his office assistant and had given her other financial assistance. In addition, from November 1977 to January 1978, he gave her many prescriptions for Quaalude, which he knew she was selling. The physician was convicted on three counts of conspiracy to deliver a controlled drug.

On appeal, the conviction on one count was reversed because the prescription involved was included in a second count. The evidence was sufficient to sustain the conviction on the remaining two counts, the court said. *422N.E.2d 410 (Ind. Ct. of App., June 30, 1981)*

Patient Information Newsletter

"Crohn's-Colitis Update" is a newsletter about Crohn's disease (ileitis) and ulcerative colitis. It is edited by Gary Gitnick, M.D., head of the UCLA Medical School Gastroenterology Department. The newsletter is intended for and will be understood by victims of the diseases, as well as their families. It may also be of value to physicians.

A complimentary copy may be obtained by writing to Crohn's-Colitis Update, 150 W. Carob St., Compton, Calif. 90220. The publication is issued quarterly. The annual subscription price is $18.

Nutrition Research Award Nominations

This is the second year for the $25,000 cash award for Distinguished Achievement in Nutrition Research, sponsored by Bristol-Myers and its Mead Johnson & Company subsidiary. Nominations are sought from medical schools, free-standing hospitals and nutrition research centers.

Dr. Morris Green, Indianapolis, chairman of the Department of Pediatrics, I.U. School of Medicine, is a member of the selection committee. Nominations must be received prior to May 31.

Infant Care Brochure

"Infant Feeding and Nutrition" is the title of a new brochure published by the Infant Formula Council to aid parents in understanding their baby's nutritional needs. Single copies of the brochure are available free of charge by writing the Council at P.O. Box 76731, Atlanta, Ga. 30358. A Spanish version also is available.

Safety Caps = Fewer Child Poisonings

The number of poisonings among children under five years of age due to products and drugs covered by the law requiring safety closures declined between 1973 and 1978 by approximately 45%. The rate per 1,000 children decreased from 5.7 to 3.4.

This evidence of the efficacy of "child-proof" closures was gathered by William W. Walton, Ph.D., of the Consumer Product Safety Commission and was reported in the March issue of *Pediatrics,* the journal of the American Academy of Pediatrics.



What do you think of the new HIGH FIBER diet?

Regional Blood Center Accredited

The Central Regional Blood Center, Indianapolis, has been designated as an Immunohematology Laboratory by the American Association of Blood Banks. The Blood Center offers assistance in cross-matching or antibody identification problems to its 36 member hospitals. It also maintains a rare donor registry.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Abeleda, Lamberto V., Shelbyville
Anderson, James T., Greenfield
Athar, Shahid, Indianapolis
Booth, Franklin M., South Bend
Brill, Joseph B., Jeffersonville
Choslovsky, Sydney, Gary
Clemente, Jose P., Richmond
Constan, Evan, Westville
Cottrell, Robert F., Fort Wayne
Deacon, Walter E., Indianapolis
Dhar, Sisir K., Terre Haute
Edler, Robert W., Muncie
Fortner, William R., New Albany
Harris, James J., Fort Wayne
Henry, Alvin L., Columbus
Heritier, Claude J., Columbia City
Hibbeln, Frederic P., Indianapolis
Higgins, James L., Evansville
Ignacio, D. G., Richmond
Kashlan, Mouhamed B., Terre Haute
Kelley, William E., Indianapolis
Keyes, Richard F., Vincennes
Liebner, Michael S., Logansport
Liebschutz, Norman H., Indianapolis
Livingston, Peter H., Bedford
Manifold, Harold M., Bloomington
Marciniak, Andrew F., Anderson
McQuiston, Robert D., Indianapolis
Mellin, David T., Elkhart
Moores, William B., Indianapolis
Moriarty, John R., Indianapolis
Paik, Geun S., Michigan City
Paik, Yoo Ja, Michigan City
Pantzer, John G., Indianapolis
Poulos, James T., Lafayette
Price, Ambrose M., Anderson
Reed, Edsel S., Jeffersonville
Schneider, Louis A., Fort Wayne
Schultheis, Richard L., Indianapolis
Sentany, Marki S., Indianapolis
South, Dale R., Elkhart
Stewart, John C., Marion
Zucker, Edward, Munster

NEWS NOTES

Here and There . . .

. . . **Dr. Donald W. Tharp** of Winchester has been named medical chief of staff, Randolph County Hospital.

. . . **Dr. George W. Hicks** of Indianapolis has become an active member of the Pan American Association of Otohinolaryngology and Bronchoesophagology.

. . . **Dr. Robert W. Briggs** of Indianapolis will receive Scouting's highest honor, the Silver Buffalo Award, this month in recognition of his service to youth over the past several years; the award will be presented at the B.S.A. national meeting in Atlanta May 22.

. . . **Dr. James R. Daggy** of Richmond received the Scott Boys Club's "Man and Boy Award" during the club's annual meeting in February.

. . . **Dr. James M. Fink** of South Bend discussed "The Heart and Diabetes" during the February meeting of the St. Joseph County Diabetes Association.

. . . **Dr. Bharam Sepehri** of New Albany has been elected to fellowship in the American Academy of Pediatrics.

. . . **Dr. Guy H. Waldo** of Bedford discussed coronary problems during the February meeting of the Bloomington Cardiac Support Group.



"Oh, Miss Casey, the patient with the split personality, bill both."

. . . **Dr. Herschell Servies Jr.** has been elected chief of the medical staff at Witham Memorial Hospital, Lebanon; **Dr. Elaine P. Habig** was elected vice-chief of staff and **Dr. Dallas Coate,** secretary-treasurer.

. . . **Dr. Leo M. Bonaventura** of Indianapolis discussed "Inducing Ovulation in Infertile Women" at Lutheran Hospital, Fort Wayne, in March.

. . . **Dr. Elaine P. Habig** of Lebanon discussed "Ten Ways to Have a Heart Attack Before 50" during a March meeting of the Boone County Chapter, American Heart Association.

. . . **Dr. Otto F. C. Lehmberg** of Columbia City has been reappointed Whitley County health officer; **Dr. John S. Wilson,** also of Columbia City, was reappointed assistant county health officer.

. . . **Dr. James E. Moneyhun** has been elected president of the medical staff, St. John's Medical Center, Anderson; **Dr. James R. Drake** was elected chief of staff; **Dr. Harold G. Benedict,** vice-president; and **Dr. Gerald O. Daniel,** secretary-treasurer.

. . . **Dr. Evart M. Beck** has been elected president of Winona Memorial Hospital, Indianapolis, succeeding **Dr. Frank B. Throop.** Also elected were **Dr. Richard A. Silver,** president-elect, and **Dr. David B. Goldenberg,** secretary-treasurer.

. . . **Dr. Jose N. Tord** of Indianapolis has been appointed to the ad hoc committee on International and Pan American Relations, American College of Gastroenterology.

. . . **Dr. Jonathan A. Fisch** of Indianapolis discussed "Vaginal Birth After Cesarean" during the March meeting of the Cesarean Association for Resources and Education (CARE).

. . . **Dr. Virginia Meade Wagner,** a Speedway pediatrician and clinical associate professor of pediatrics at the I.U. School of Medicine, has received the 1982 Service to Mankind Award from the Golden Circle Sertoma Club.

. . . **Dr. R. Daniel Grossman,** a Bloomington ophthalmologist, addressed the Bloomington chapter of the American Lupus Society in March.

. . . **Dr. Larry D. Lovall** of Danville discussed Medicare eligibility and patients' rights at a March meeting of the Make Today Count Chapter of Hendricks County.

. . . **Dr. David W. Howard** of Jasper discussed lung cancer during a February meeting of the Holland Kiwanis Club.

. . . **Dr. Magdi Gabriel** of Mishawaka addressed the Stroke Club of St. Joseph County in February.

. . . **Dr. Don R. Jardine** of Indianapolis co-authored "The Two-Stage Vertebrectomy in the Management of Severe Spinal Deformities," which he presented at the annual meeting of the American Academy of Orthopaedic Surgeons in January. The work also was presented as a scientific exhibit at the New Orleans meeting.

. . . **Dr. Richard M. Knapek,** an Indianapolis colon and rectal surgeon, addressed a March meeting of the United Ostomy Association, Indianapolis chapter.

. . . **Dr. John B. Thurston,** an Indianapolis plastic surgeon, addressed members of Encore, a YWCA post-mastectomy group, during their March meeting.

. . . **Dr. Justin E. Arata,** a Fort Wayne general surgeon, has been appointed to the board of directors, Franklin National Life Insurance Co. He has been the company's medical director since 1979.

. . . **Dr. Paul E. Schmidt,** an Indianapolis cardiologist, discussed bypass surgery at a March meeting of the Heart Beats Club, Columbus.

Highest Exam Scores

United States medical students attending St. George's University School of Medicine, which has its main campus in Grenada, West Indies, have, for the second year in a row, outscored other U.S. students studying medicine in 54 overseas schools who took the ECFMG exam in 1981.

Eighty-four per cent of the St. George's students examined last year passed the ECFMG. Students attending Tel-Aviv University in Israel were the only group that exceeded St. George's University.



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Almost 2,000 people are joining the Medic Alert Foundation every week. Why? Because it provides the best emergency medical identification system available.

Medic Alert, founded in 1956, is a non-profit, charitable and tax-exempt Foundation that claims more than 1.5 million members. Its purpose is to serve people with hidden or special medical problems that cannot be easily seen or recognized.

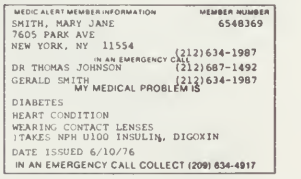
Allergy to penicillin, diabetes, heart conditions and wearing contact lenses are among the most frequently named of the more than 200 common reasons for membership.

In a renewed effort to communicate with physicians and the public, an Indiana Advisory Committee for Medic Alert has been formed and its primary message is that one of every five individuals—over 40 million Americans—has a special medical condition and is therefore a candidate for Medic Alert membership.

Membership consists of three components:

1 alerting device

2 wallet card



3 emergency answering service



- The emblem, worn as a bracelet or necklace, attracts attention in a medical emergency. On it are engraved the special medical problem or problems of the wearer, the membership number and the telephone number of the Foundation's hotline.
- Medical and emergency personnel can call that number, collect, at any time to receive all the information in a member's emergency record.
- Each member annually receives a wallet card bearing the latest information the member has provided. A member's emergency record, containing personal as well as medical data, can be updated at any time.

A lifetime of protection by Medic Alert is available for a one-time basic membership fee of $15.

The Indiana State Medical Association endorsed the Medic Alert program in November 1977, thus encouraging physicians to make appropriate patients aware of the program.

The Foundation's address is P.O. Box 1009, Turlock, California 95380.

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OBITUARIES

William B. McWilliams, M.D.

Dr. McWilliams, 85, a retired Liberty general practitioner, died Feb. 6 at his home.

He was a 1929 graduate of Indiana University School of Medicine. He served in France during World War I with the U.S. Marine Corps.

Dr. McWilliams was a former Union County coroner and deputy coroner. He served as county health officer from 1969 to 1979. He was a member of the ISMA Fifty Year Club and was a former Wayne-Union County ISMA delegate.

James M. Pfeifer, M.D.

Dr. Pfeifer, 73, a retired Lawrenceburg general practitioner, died March 9 in Cincinnati, Ohio.

He was a 1933 graduate of Indiana University School of Medicine and served in the Pacific as a flight surgeon during World War II.

Dr. Pfeifer, a founder of Dearborn County Hospital, Lawrenceburg, retired in 1978. He was a former president of the Dearborn-Ohio County Medical Society and was a member of the American Academy of Family Physicians.

Memorials

Indiana Medical Foundation

The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

Contributions made to the Foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for Federal estate and gift tax purposes.

The Foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

Hwei-Ya Chang Loh, M.D.
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Mrs. Beth Bowen
James O. Ritchey, M.D.
Thomas A. Hanna, M.D.

Copeland C. Bowers, M.D.

Dr. Bowers, 78, a retired Kokomo general practitioner, died Jan. 12 in Monument, Colo., where he had lived in recent years.

He was a 1932 graduate of Washington University School of Medicine, St. Louis.

Dr. Bowers served as a flight surgeon with the Air Force during World War II.

John E. Jesseph, M.D.

Dr. Jesseph, 56, Coleman professor of surgery and chairman of the Department of Surgery, Indiana University School of Medicine, died March 29 in Indiana University Hospital.

He was a 1953 graduate of the University of Washington School of Medicine.

Dr. Jesseph developed major programs of education, research and patient care since joining the I.U. Medical Center in 1971. He was a Sagamore of the Wabash and was listed in "Who's Who in America."

Dr. Jesseph, a World War II Marine Corps veteran, was a colonel in the Indiana National Guard. Just a week before his death, he was presented the Indiana Distinguished Service Medal and the Eagle Award; the latter, the highest given by the National Guard Bureau, was presented in recognition of his work organizing the Medical Reserve Officers Training Corps.

He had been chairman and director of the American Board of Surgery and director of the American Board of Family Practice. He was a Fellow of the American College of Surgeons and belonged to several other professional organizations.

John H. Combs, M.D.

Dr. Combs, 83, Evansville, died Jan. 25 at Welborn Baptist Memorial Hospital, where he had been chief anesthesiologist for 41 years before retiring in 1976.

He was a 1934 graduate of Indiana University School of Medicine and an Army veteran of World War II.

Noel S. McBride, M.D.

Dr. McBride, 76, a retired Terre Haute ophthalmologist, died March 6 in Scottsdale, Ariz., where he lived in retirement.

He was a 1929 graduate of Indiana University School of Medicine and had practiced in Terre Haute from 1935 to 1979.

Dr. McBride, who was certified by the American Board of Allergy and Immunology, was a member of the American Academy of Ophthalmology, the American Association of Ophthalmology and the Contact Lens Association of Ophthalmologists. He also was a member of the ISMA Fifty Year Club.

COMMERCIAL ANNOUNCEMENTS

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Commercial announcements are published as a service to members of the Indiana State Medical Association. Only advertisements considered to be of advantage to members will be accepted. Advertisements of a truly commercial nature (e.g., firms selling brand products, services, etc.) will be considered for display advertising.

All orders must be in writing and will automatically be set in regular classified type. *Box numbers are not available.*

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EMERGENCY MEDICAL POSITIONS—Emergency Consultants, Inc. has Emergency Medicine opportunities available in resort and metropolitan locations. 60 hospitals in 12 states are currently serviced. Benefits include competitive salaries, paid malpractice insurance, and flexible scheduling. For further information, contact Emergency Consultants, Inc. Call Linda Miller collect at (312) 222-9696.

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WHAT'S NEW?

CONTINUED FROM PAGE 292

LOSSING ORTHOPEDIC COMPANY is marketing Necktrac®, a simplified neck traction system. It operates by allowing the patient's own weight to achieve the traction. No weights or water bags are necessary. Necktrac may be used on a physical therapist's table, a bed, or on the floor at home.

BOOMA PRODUCTS PTY. LTD. of Australia markets bed mats made from top-grade sheepskins for use in hospitals and other institutions to provide ease and comfort for the bedridden. Warm in winter, cool in summer, the wool fibers permit free circulation of air and quickly dissipates moisture. Launders well. Avoids and treats bed-sores. The wool is colored orange-pink to identify it as medical sheepskin.

SCHERING announces GARAMYCIN® I.V. Piggyback Injection, the first antibiotic available for use as a prepared solution. No dilution is necessary prior to injection. The new unit contains a concentration of 1 mg/ml in sterile saline solution in sealed 80 ml glass bottles. It is most useful when the patient is already receiving an intravenous solution.

BCD PRODUCTS announces FDA approval for a new thermographic breast examination technique, called Thermascan™. It is an aid in diagnosis of fibrocystic disease, fibroadenomas and cancer. The device is constructed simply and is more cost effective than the earlier thermographic machines.

C. R. BARD has a new chest drainage system, the THORA-KLEX™ Chest Drainage System, which does not include the three-bottle water device. Positive and negative pressures are maintained and monitored by a valve system that preserves proper intrathoracic pressure and protects against backflow. A U-tube indicator monitors air leaks and respiratory dynamics.

INSTROMEDIX announces Tape-A-Trace 2400 EKG monitoring recorder, which completes the Instromedix transtelephonic monitoring system by automatically answering and recording incoming patient messages and EKGs. The new instrument can fill in for both EKG technicians and telephone receptionists during regular office hours, and provides after-hours automatic telephone monitoring.

3-M sells a compact monitor that measures the time-weighted average (TWA) concentrations of halothane, enflurane and similar anesthetic gases to which operating room personnel have been exposed. It is a lightweight clip-on unit about the size of a silver dollar, to be worn on the clothing near the user's breathing zone. It measures concentrations over an interval of approximately eight hours, and can measure concentrations as low as 0.5ppm.

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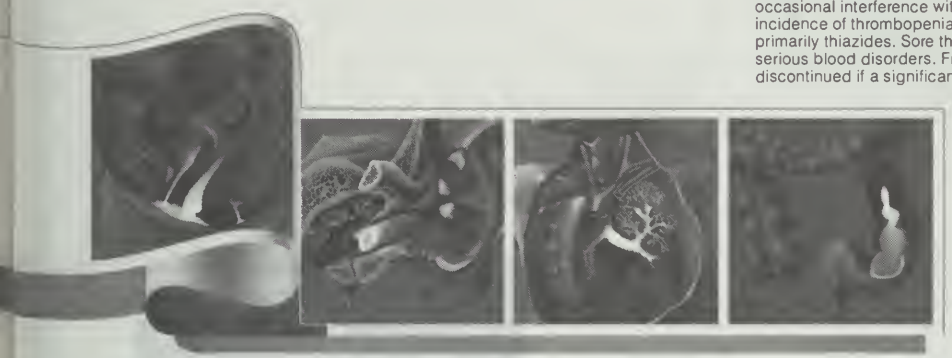
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faster relief of diarrhea than with ampicillin[2]

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

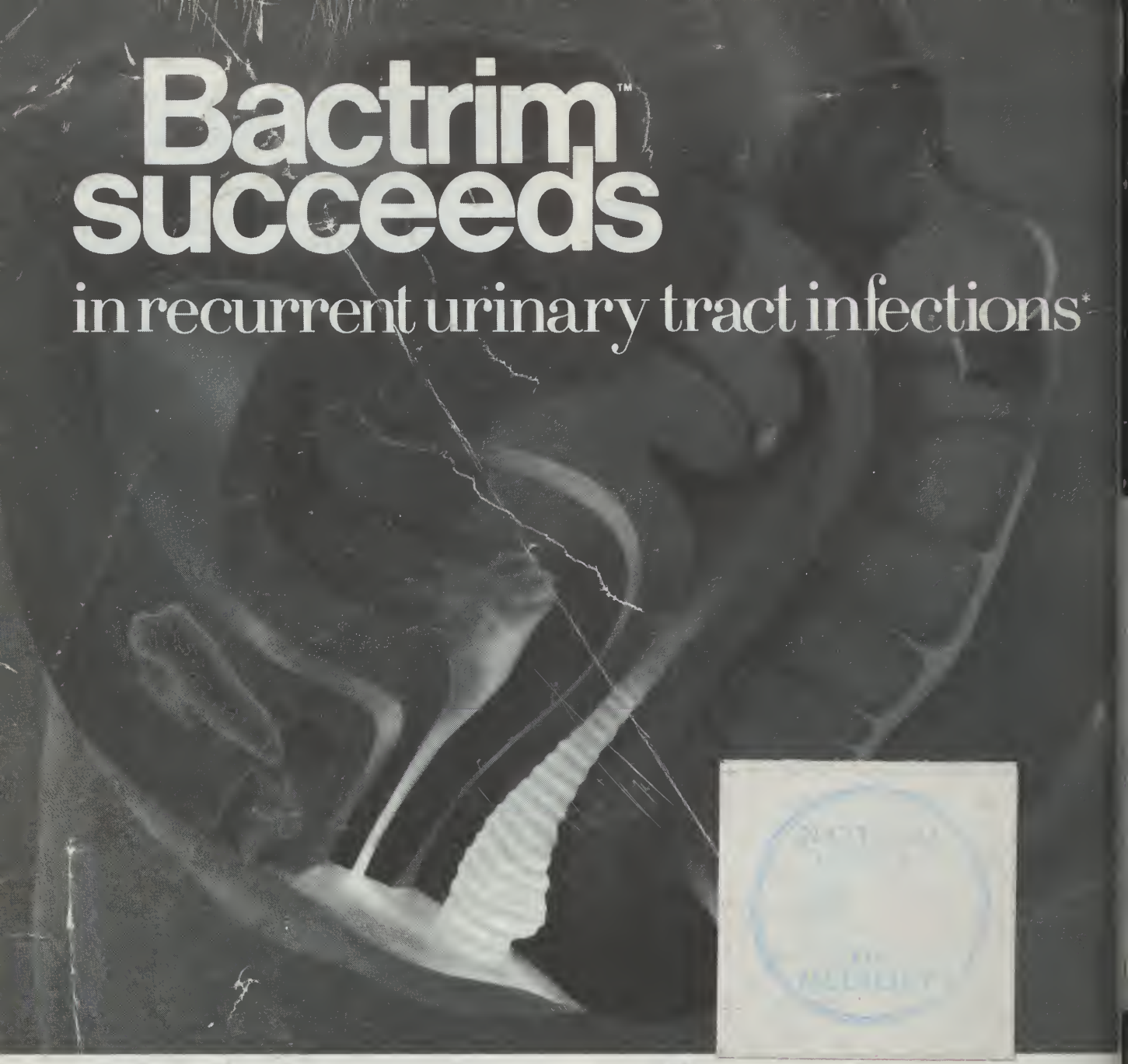
Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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Nutley, New Jersey 07110

Bactrim™ succeeds

in recurrent urinary tract infections*



from site to source

Bactrim continues to demonstrate high clinical effectiveness in recurrent urinary tract infections. Bactrim reaches effective levels in urine, serum, and renal tissue[1]...the trimethoprim component diffuses into vaginal secretions in bactericidal concentrations[1]... and in the fecal flora, Bactrim effectively suppresses Enterobacteriaceae[1,2] with little resulting emergence of resistant organisms.

1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

Bactrim™ DS

160 mg trimethoprim and 800 mg sulfamethoxazole

DOUBLE STRENGTH TABLETS

maximizes results with B.I.D. convenience

ROCHE®

*due to susceptible strains of indicated organisms

Please see previous page for summary of product information.

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June 1982 • Vol.75 • No.6

The JOURNAL of the INDIANA STATE MEDICAL ASSOCIATION



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MEDIEVAL TOOTH-DRAWER
See 'Medical Museum Notes'

An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor
Pulvules®, 250 and 500 mg

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coomb testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

As with other broad-spectrum antibiotics, colitis, including rare instances of pseudomembranous colitis, has been reported in conjunction with therapy with Ceclor.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor® (cefaclor). Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [100281R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

200066

MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

Open Wide, Brace Yourself, And Start Yelling!



Tooth key—shown here at about half of actual size

The front cover of this issue of THE JOURNAL illustrates the use of the instrument which is shown on this page—a tooth key for extracting teeth.

It may seem at first glance that these illustrations would be more appropriate for a magazine of dentistry than for a medical journal. The instrument pictured here, however, was used by Dr. Hubbard M. Smith (1820-1907) of Vincennes, Indiana; and most of Indiana's pioneering physicians used this key, or other extracting devices, for pulling teeth, a not uncommon service in their practice of medicine, and one for which a fee of 25 to 50 cents was charged.

In pioneer Indiana dentistry was usually practiced, not as a specialty, but in conjunction with medicine.

The instrument itself dates from the Middle Ages. Bremmer *(The Story of Dentistry,* London, Henry Kimpton, 1958) tells that, until the Middle Ages, whatever remained of ancient knowledge was to be found in the monasteries, where monks pulled teeth and attended to other minor surgical and medical problems, in addition to their more usual clerical duties.

In 1163, the Pope ruled that any surgical procedure associated with bleeding was incompatible with the priestly office, so tooth-pulling then became the province of the barber, and to a lesser extent, the physician.

During the Middle Ages, there developed the trade of "tooth-drawing," made up, as Bremmer states, "of a shifty lot of vagabonds." The cover is an example of Bremmer's comment: "The Tooth-drawer, in plying his trade on some street corner in a medieval town, was a familiar sight, particularly on market days." He plied his trade, however, with a tool particularly adept for his purpose.

The tooth key manufactured in colonial America, like its medieval analog, had a straight shank. During the 1770s a slight bend was introduced. A more severe angle, shown here, characterizes those instruments made after 1820. The angle enabled the operator to exert more leverage on the tooth.

The tooth key shown here belonged to Dr. Hubbard M. Smith, who commenced his practice in Vincennes in 1847. Kemper describes Dr. Smith as being a physician, educator and writer. (His writings include a book of verse, *At Midnight and Other Poems,* published by Carlin and Hollenbeck, in 1898.)

The instrument was shown at the Pathological Exhibit of the American Medical Association in 1900. The tag, which had been affixed to the handle in 1900, was still attached when the tool was given to the Museum (but brittle, curled and dried like a Dead Sea scroll). In addition to the original owner's name is the comment, "This instrument was in common use 50 years ago."

This tooth key and several other items were given to the Museum by the late Dr. William Niles Wishard, Jr.



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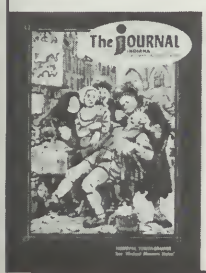
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ABOUT THE COVER

During the Middle Ages, the "tooth-drawer," a shifty vagabond, plied his trade on some street corner with a tool particularly adept for his purpose. Dr. Charles A. Bonsett, author of "Medical Museum Notes," tells readers more about medieval "dentistry" on page 361.

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WHAT'S NEW?

Amko Manufacturing offers a Kevorkian-Younge Biopsy Curette that features a basket to catch and retrieve tissue specimens—the same instrument also is available without basket. Both come either rigid or malleable. Recommended for endo-cervical and endometrial tissue removals for biopsy. The narrow tip does not require dilation prior to insertion.

Schering has received FDA approval for marketing Trinalin, a highly effective, new prescription medication for treating perennial and allergic rhinitis. The long-acting antihistamine/decongestant tablets contain 1 mg azatadine maleate and 120 mg pseudoephedrine sulfate.

Pfizer has FDA approval for marketing Feldene® (piroxicam), the first nonsteroidal anti-inflammatory agent recommended for one-a-day dosage for patients with rheumatoid arthritis or osteoarthritis. Long duration of action provides 24-hour relief of the pain, swelling and inflammation of arthritis. Less nighttime pain and morning stiffness. It is one of the most widely prescribed antiarthritic products in Europe, having been approved there in 1979.

The 3M Company has introduced a transparent dressing that protects a wound from contamination while allowing continuous observation of the wound site. The 3M Tegaderm brand dressing features a semipermeable film backing, which permits moisture vapor to evaporate from the skin and acts as a barrier to bacteria and water. The dressing conforms to body contour and permits normal movement.

The 3M Company announces a new adhesive tape which exceeds in conformability and adhesion while minimizing skin irritation. Ultrapore Surgical Tape provides high initial adhesion, but removes easily without sticky residue. It is hypoallergenic and has a 100% rayon fiber backing. Its microporosity allows skin to function normally. It is recommended especially for taping nasogastric tubes, for chest tube dressings and for colostomy use.

The 3M Company is introducing two new products for use with C-arm image intensifiers. The "6017 Ioban Antimicrobial Patient Isolation Draping System" is a complete isolation drape incorporating a broad spectrum antimicrobial agent directly into the adhesive in the drape's incise area to provide continuous protection against skin bacteria during surgery. "The Steri-Drape No. 1013 X-ray/Image Intensifier Drape" is a large bag style drape available for use with C-arms when a vertical draping technique is not possible. It is designed for a wide variety of procedures which use imaging equipment.

Searle has FDA approval to include a recommended dosage for children in its labeling for Norpace® (disopyramide phosphate). The new Norpace pediatric dosage will provide physicians a suggested maintenance schedule for children under the age of 18 who are afflicted with such arrhythmias as premature ventricular contractions, including unifocal, multifocal or paired PVCs; and episodes of ventricular tachycardia.

BCD Products has received FDA approval for marketing Thermascan™, a heat sensitive flexible foil containing cholesteric liquid crystals that give off color patterns indicating differences in surface temperatures of the skin upon which the device has been applied. The resulting color scan is recorded by a camera using film that produces instant pictures. To the extent which neoplasms radiate more heat than do normal tissues, the device may indicate the possibility of malignancy or inflammation.

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

Hewlett-Packard announces a new ultrasound imaging system that simplifies estimates of fetal growth and maturity. Model 77020AR will measure fetal anatomy and record measurements on a display screen by use of cursors. The device will also automatically average a series of measurements and uses the averages in fetal development computations.

Abbott Laboratories is the first company to receive FDA approval to use a monoclonal antibody in a Class III laboratory device—its carcinoembryonic antigen test (CEA) for monitoring cancer therapy. Monoclonal antibody technique is one of the improvements by which Abbott has improved simplicity of many tests and improved consistency of the results. Abbott's diagnostic tests employ antibodies to help identify substances in the patient's blood that may indicate disease.

Merrell Dow has started distribution of Susadrin™ Transmucosal Tablets. Susadrin is a new form of nitroglycerin which applies an important advance to treatment of angina. The tablet is placed under the upper lip where it remains comfortably in place. An inert polymer base releases nitroglycerin for absorption by oral mucosa over a sustained period. It has both fast onset of action and prolonged duration of effect.

Syn-Optics is introducing a revolutionary new medical video camera. It is sub-miniature in size, weighs just 3.5 ounces and is fully soakable in Cidex solution. It is designed to televise arthroscopy and other forms of endoscopy. Also useful in microsurgery. There are three models and optional equipment is available.

Hewlett-Packard has an improved new ultrasound system for cardiac imaging. Model 77020AC includes dynamic imaging, storage and performance analysis capabilities. It is designed to work along with the echocardiographer in making quantitative cardiac evaluations. It measures cardiac dimensions in end-systole and end-diastole with movable cursors that appear on the display screen.

Luther Medical Products has introduced the L-Cath™ Subclavian Catheter Set. It features a "BREAKAWAY" needle which can be completely removed from the catheter after insertion. The catheter is radiopaque polyurethane with excellent biocompatability. It is extremely soft to help reduce vein trauma and is sufficiently flexible to float within the vein.

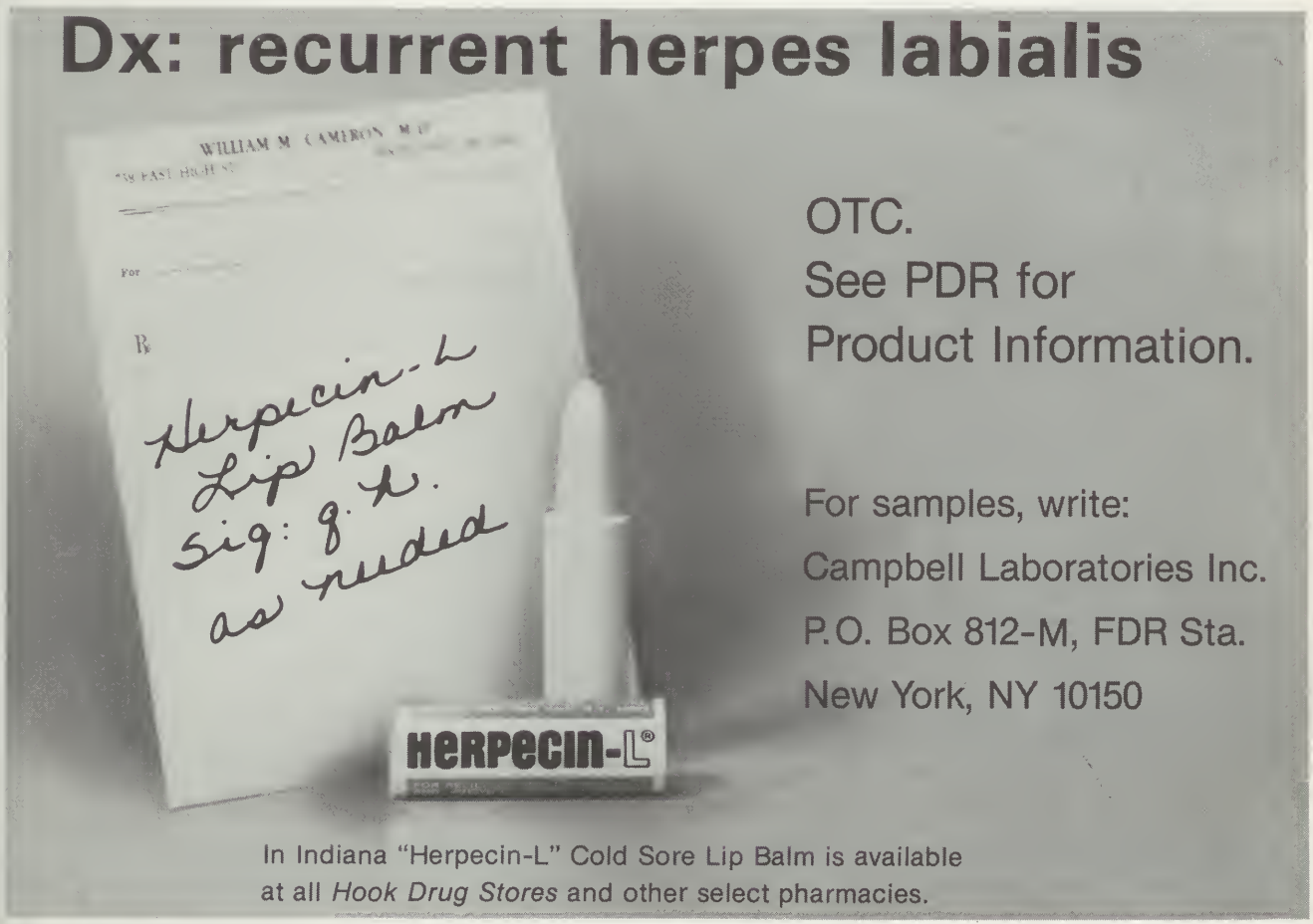
The Pall Corporation announces a high efficiency, disposable filter that removes bacteria from respiratory and anesthesia breathing circuits. The filter resists accumulation of water and does not develop "wet-block." It will remove 99.999% of bacteria, and therefore removes the cause of nosocomial infection from respiratory therapy and anesthesia equipment to a very high degree.

Merck Sharp & Dohme has introduced Dolobid (Diflunisal, MSD). It is approved by the FDA for mild to moderate pain and osteoarthritis. It is highly potent, non-narcotic and unusually long-acting. It is the result of 20 years of research. Dolobid has been shown to be highly effective in the treatment of pain associated with general and orthopedic surgery, oral surgery, episiotomy and muscular strains and sprains.

The International Federation of Multiple Sclerosis Societies has published *Therapeutic Claims in Multiple Sclerosis.* It lists 120 therapies, most of which are useless. Since treatment of MS is limited to symptomatic therapy, the book is valuable for patients and physicians in preventing false hopes and in preventing the side effects of some of the ineffective treatments.

Burroughs Wellcome has FDA approval for marketing Zovirax® (acyclovir), an antiviral drug approved for use against initial infections of herpes genitalis (herpes simplex virus). It also will be used to manage localized herpes simplex infections for both genital and labial herpes (cold sores).

Eli Lilly and Company has FDA approval for marketing Oraflex™ (benoxaprofen), a new once-a-day medication for the treatment of arthritis, both osteo and rheumatoid. Oraflex may work differently from other drugs currently available for arthritis. It appears to work by inhibiting the migration of certain white cells in the blood stream to the sites of arthritis inflammation. It has been marketed in the United Kingdom since October 1980, and is well accepted.



The Right to Prescribe

Guest Editorial

DURING THE LAST 10 to 20 years, many states have enacted legislation providing for the delegation of defined health care tasks to physician assistants. We have come to recognize these physician extenders under the title "Physician Assistant" (PA).

This title, as interpreted by the National Commission on Certification of Physician Assistants (NCCPA), is a generic term referring to a class of mid-level health practitioners who perform tasks traditionally within the purview of physicians and legally under the supervision of a clearly identified physician.

Since the first program was conceived in the late Sixties, this health care group has increased to more than 10,000 practicing PAs who come from 49 accredited primary care training programs and three surgical programs. These graduate PAs are state-licensed, and certification is obtained by passing a two-day examination administered by the NCCPA. Of the 10,000, the NCCPA had certified 7,958 as of January 1981.

Utilization of these individuals will, of course, vary—but the following are some of the most frequent activities and conditions encountered: physical examination, hypertension, laceration/contusion, pharyngitis/tonsillitis, arthritis/rheumatism, and diabetes mellitus.

As of 1980, there were 13 states (California has a pilot program) that allow PAs to write prescriptions under various arrangements. In other states they may transmit prescribing information as a delegated function by initiating prescriptions in the name of the supervising physician.

Another health care profession that has obtained the right to prescribe in at least 10 states is the nurse. Working with physicians, they may prescribe for certain classes of drugs depending upon the laws of the state.

It often has been said that pharmacists are the most accessible health care practitioners and know more about drugs than either the physician or the nurse. However, only in California (in the pilot program) do we see pharmacists prescribing. One has to wonder if the prescribing function is something that pharmacists want or even would be in their best interest.

Since PAs and nurses have to work under the supervision of a physician, it follows that the same thing will apply in the case of pharmacists. This being the case—pharmacists, after passing some sort of certification examination, perhaps will be allowed to prescribe if they are working in an outpatient clinic, a hospital or a long-term care facility.

Where these prescriptions will be filled is a question that remains to be answered. In a clinic situation, the patient having freedom of choice will seek out his own pharmacy for dispensing of the medications. In long-term health facilities, it will be the facility's drug provider who may or may not have any direct relationship with the writer of the prescription. Hospitals probably will take care of many of their own, but outpatients probably will still have freedom of choice.

Therefore, the question is who is going to pay for this prescribing service of the pharmacist? It can be correctly assumed that PAs and nurses will be working for physicians who will pay for increasing their productivity. Will the same situation apply to pharmacists? The answer naturally must await the pharmacist providing such service.

Will community pharmacists have this function? We don't know. If they do, who will fill the prescriptions? The patient, it seems to us, would have the freedom of choice, which may or may not be the prescribing pharmacy. If such a situation is developed, is there really any economic incentive for these practitioners to prescribe?

If we are going to have the prescribing privilege, it would seem to be better if pharmacists had a class of drugs that they could prescribe or dispense, if you will, after they made the appropriate evaluation.

The FDA has and probably will continue to move prescription drugs to OTC status. A question that might be asked is: Are there drugs that could be moved so that pharmacists could dispense them without a physician's prescription?

Since our education and training has shifted to more clinical aspects, aren't our recent and future graduates going to be able to make a decision on which drugs would be best? And, if that is true, then shouldn't they be able to select (prescribe) a drug that would be beneficial for the condition?

If we are going to prescribe under the condition outlined for the other two health care practitioners, have we really done anything to promote our professional expertise or are some of us simply going to become physician extenders?

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High Hospital Costs

Guest Editorial



L. A. ARATA, M.D.
Shelbyville

ALMOST EVERYONE will agree that hospital costs are too high. A decision on the question of "how high is too high?" is about as difficult as the old poser of "how high is up?" To ponder how we got to this "too high" level, I explore some of the history of hospital costs.

In the 1940s, 10 days of obstetrical care cost me about $75—including the nursery. This represented two weeks earnings of a clerk or a factory worker.

In the late 1950s, I arrived in Shelbyville to practice medicine. At that time, our hospital was much simpler in administration and space allocation than now. At that time, the administrator was an R.N. She could function as administrator as well as personnel director, and in a pinch, could man (or woman) the telephone switchboard. At that time, medical records occupied a small room and had a clerk or two caring for the records. The rest of the supporting staff and services were comparably small.

Through the 1960s and particularly during the 1970s, the organization of the hospital changed. New office and administrative personnel multiplied almost like rabbits. Soon it seemed to take two, then three, then even more people to do the work formerly done by one. Personnel managers, dietary assistants, office managers, bookkeeping departments, vastly increased medical records personnel, educational department, ward secretaries, discharge planning, *et cetera* ad infinitum. Of course, patient services were increasing: physical therapy, respiratory therapy, increased x-ray space, increased lab space, increased pharmacy space, intensive care unit, and probably many others.

So, as our rated bed capacity dropped from 109 beds to 89 beds, our floor space increased exponentially to accommodate the exponential increase in personnel to occupy the desks in the many offices.

At present, our hospital floor space is allocated about 75% to patient care and services, and about 25% to administration and other. The payroll is divided about 70% for patient services and about 30% to administration and other. (Our current basic room rate is $145 per day—not including telephone and T.V.) There is so much overlapping of services, personnel, and floor space between patient services and administration that exact percentages cannot be determined. These figures are supplied as the best guestimates by our administrator.

Now, we get back to the original question: How high is too high? And a related question: Can they be cut? Like so many things pertaining to medical practice, we have better questions than we have answers.

To address the questions head-on, too high is more than the patients and taxpayers can afford to pay. It is my opinion that we are near the point of "too high." Can they be cut? Probably, but at the sacrifice or curtailment of some of the services, and at the sacrifice by administration of some of the myriads of office and administrative personnel. I would hate to see patient services curtailed as badly as the administrators would like to see their petty sheikdoms depopulated. So, I return again to the original basic question: How high is too high? I like to think also that we can't all afford Rolls-Royce automobiles, private jet planes, or 18-room palaces. Quite frankly, most of us can be comfortable and contented with less than gold-plated plumbing fixtures. At least, I can.

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Predicting Our Economic Future

Commentary



RICHARD L. LESHER
President
U.S. Chamber of Commerce

PREDICTING THE FUTURE has never been easy. It is hard enough when the possible outcomes can be narrowed to two, such as in sports—let alone in economics, where the possibilities are endless.

Economic forecasting is at a crossroads right now. We have witnessed this year a sharp break with the economic policies of the past 40 years. Unless they choose to continue to be as wrong as they have been about Reagonomics over the past few months, the economic astrologers who make their bread, butter and notoriety by issuing predictions will now have to change their assumptions as well.

Take interest rates for example. When the prime rate was stuck above 20% in late September, economist Henry Kaufman sent shock waves through Wall Street when he said, "I continue to believe that we have not yet seen the high in interest rates, either short term or long term."

MIT economist Lester Thurow was more direct: "Reagan's program will not work," he wrote in *Newsweek* on Sept. 21. What about the Administration's predicted decline in interest rates? "They have been making that promise since January," Thurow declared. "It isn't going to happen."

It did happen. As I write (February), the prime rate stands at 16½% at some banks, a 20% drop since those doomsday forecasts were made.

In the same article, Thurow questions the basic premise of Reagan's supply-side tax cut, and issues a common prediction: The tax cut would be spent and not saved, thereby depriving the economy of the investment capital needed to drive interest rates lower and productivity higher. "The President says that if Americans are given a 25% across-the-board tax cut they will suddenly become big savers," Thurow writes. "The most likely hypothesis is that they will consume most of their tax cut."

Yet, during the first three months of the Reagan tax cut, a significant increase occurred in the rate of personal saving by Americans—from 5.2% during the preceding three months to 6.0%. On an annual basis, that increase amounts to $17 billion in additional savings.

Like it or not, these and other economists are heeded by the people who make major political and business decisions in this country. In fact, their dire pronouncements about Reaganomics last fall contributed to an atmosphere of panic and retrenchment on Capitol Hill, among investors and even among some Administration officials.

It is time to discard that foggy crystal ball for one that accurately gauges the new economic policies of our country. And, if I may take the first gaze into this supply-side crystal ball, I see, on balance, a robust economic performance in 1982.

The economy will rebound strongly in 1982 for three reasons: 1) the sharp decline in interest rates that is currently under way, 2) the 1981 tax bill, by encouraging saving and investment, and 3) an explosion of pent-up consumer demand for homes, autos and durable goods. Americans have been delaying these purchases for some time due to prohibitive interest rates and the lack of economic certainty. Both of these are changing.

**Physicians' Directory—
A Service for Hoosier Doctors
See Pages 425-427**

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy,* Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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Computed Tomographic Scanning of the Brain

Consensus Report Summary

A CONSENSUS DEVELOPMENT CONFERENCE held at the National Institutes of Health Nov. 4-6, 1981, reviewed scientific evidence related to computer tomographic (CT) scanning of the brain.

At NIH, consensus conferences bring together research investigators, practicing physicians, representatives of consumer and special interest groups and others to make a scientific assessment of medical technologies and to seek agreement on their safety and effectiveness. After hearing data presented by experts in CT scanning and considering audience discussion, a consensus panel of specialists and generalists issued a statement addressing key issues relating to CT scanning of the brain. Following is a summary of that statement:

CT scanning of the brain is a safe, accurate, and powerful tool in the primary diagnosis of brain tumors, brain hemorrhage, major head injury, and certain brain infections. CT scanners have been a major factor in decreasing deaths, especially in severe head injury and brain abscess, and the presence of these conditions clearly calls for the diagnostic assistance of the CT.

While there are numerous indications for use of CT, it should not be employed as a "routine screening procedure" when patients show little likelihood of having structural disease such as in cases with minor head trauma or simple headache.

Among the indications for use of CT are when there is suspicion of arteriovenous malformations, hydrocephalus, herpes simplex encephalitis, parasitic infestations, progressive degenerative diseases of the brain, and intracranial tumors. In primary brain tumors, CT has resulted in the detection of smaller lesions, lower death rates following surgery, and decreased time in the hospital.

CT usually will differentiate between ischemic and hemorrhagic intracranial lesions—helping the physician to select appropriate medical or surgical therapy. And CT is helpful in identifying potential structural causes of complex partial or focal epileptic seizures. CT also is an important clinical tool in pediatric neurology that should be used to evaluate undiagnosed coma and other neurological symptoms.

Although CT does carry potential hazards, including a small risk of adverse reactions to contrast material—if used—the procedure is "remarkably safe." The amount of radiation produced by the CT is comparable to or less than that emitted from many other routine diagnostic procedures, including dental x-rays. Physicians should, however, use special care in ordering multiple scans for children since "the effects of repeated cumulative low-level radiation doses to the immature, developing brain are yet unknown.

Despite its widespread use, CT "may not be sufficiently available for the public to derive the full benefit of its potential." Evidence indicates an insufficient number of the instruments in some large metropolitan areas, in medically underserved areas, and in sparsely populated regions which experience a high incidence of head trauma.

Copies of the full Consensus Statement on CT Scanning of the Brain may be obtained from the Office for Medical Applications of Research, Building 216, National Institutes of Health, Bethesda, Maryland 20205.

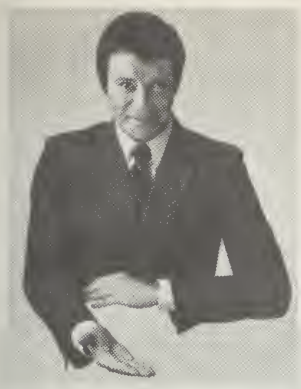
From the Public Health Service, National Institutes of Health, Bethesda, Md. 20205.

Membership Roster

Additional copies of the 1982-1983 Membership Roster of the Indiana State Medical Association, published and distributed in April, are available for purchase.

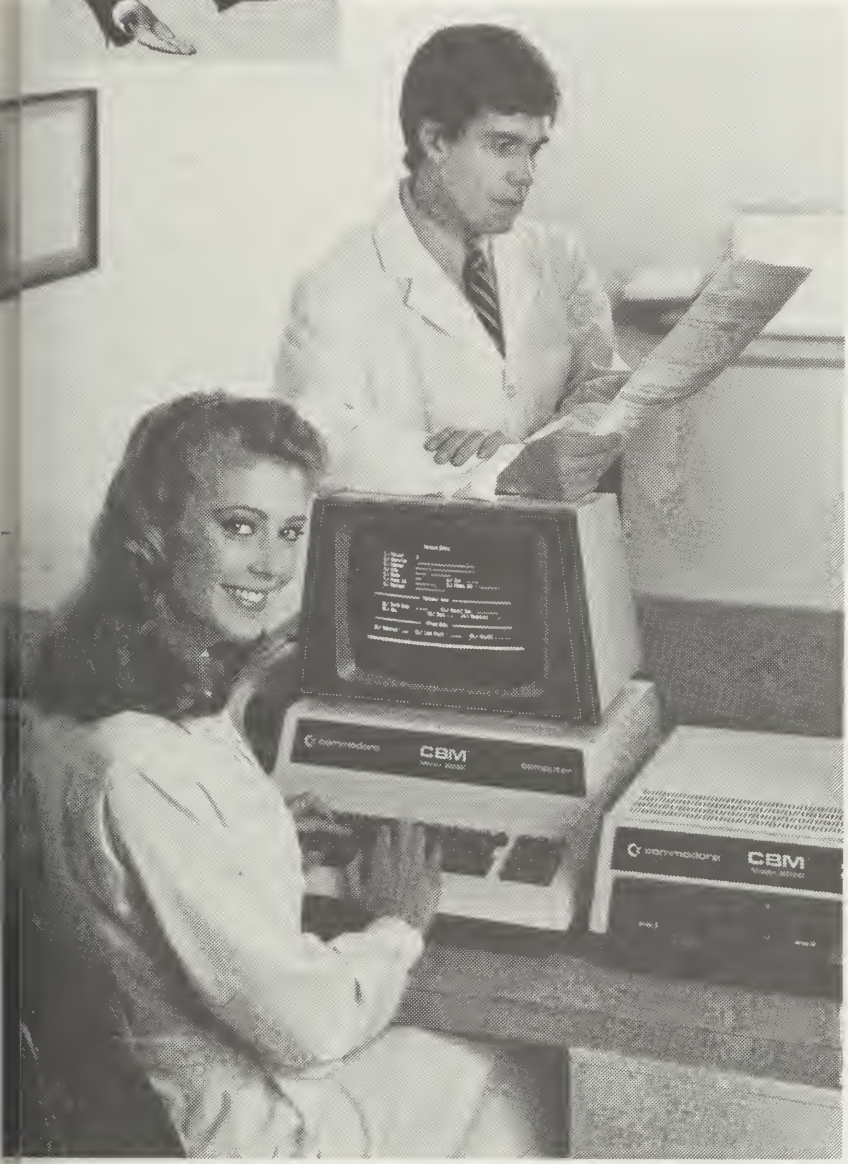
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Orders should be placed through the ISMA Membership Department, 3935 N. Meridian St., Indianapolis, Ind. 46208.



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Out-of-State Laboratory Testing: Lost Revenue for Indiana's Clinical Labs

The Case for ISMA Resolution 81-24

ARTHUR C. JAY, M.D.
Lebanon, Ind.

FOR YEARS, the practice of medicine in its broadest concept—including its supporting knowledge, facilities, equipment, and personnel—has multiplied so rapidly that it's almost impossible to appreciate, or to comprehend. Concurrently, society with all of its demands and complexities has never ceased changing, not the least of which is the economy with its direct relationship to the philosophy of: a) the method of providing medical care—private vs. government, b) the control of medical care, and, c) the cost of medical care. The key phrase is now "clinical relevance vs. cost justification."

In addition, the pressures of the economy, and changes in regulations resulting in decreasing amounts of third-party reimbursement funds for services rendered in general, have made it increasingly difficult to continue maintaining the status quo, let alone to progress and improve the quality and service of medical care. To do this takes money—an item which has been and may continue to be in short supply.

Any thought of future planning in our hospitals or in the practice of medicine, and the delivery of that service at the same pace and quality has to be based on the ability to fund these services. The converse, a reality that we are faced with, is deterioration.

From the Department of Pathology, Witham Memorial Hospital, 1124 N. Lebanon St., Lebanon, Ind. 46052. Dr. Jay is the author of ISMA Resolution 81-24, which was adopted as amended by the 1981 House of Delegates.

We, therefore, must communicate with and among ourselves as physicians and between physicians and hospital administrators. The reasons which precipitated this discussion are very real, very valid, very practical, very economic, and very much applicable to the clinical laboratories, physicians, and patients in Indiana now and even more so in the future. This is even more pertinent in view of the potential competitive bidding for outpatient Medicaid testing as passed in the Budget Reconciliation Bill and the current proposals before the 97th Congress which could expand the competitive bidding approach.

The specific concern of this article is that of the clinical laboratory. Clinical laboratory medicine—including the quality, management, orientation toward service to the patient and physician, proficiency testing, sophistication, automation, costs, fee structures, pressures placed on us by medical advances, and last but not least the inroads and control exercised by the federal government—has changed dramatically in the past few years. The deterioration of the economy, fee controls, competitive bidding for Medicaid (and potentially Medicare), and cost containment make the challenge of laboratory management and survival of the laboratory still more difficult.

Like it or not, the bottom line is *dollars*. Our ability to progress, to add new sophisticated testing, to add new equipment, to computerize, to keep good technical personnel, or to add new technologists, or even to be able to remain at status quo, is related directly to the gross and net figures of the laboratory, whether of the hospital or independent type. With a greater volume of testing, the laboratory is able to keep up, to progress, and to provide physicians with seven-day coverage, stat service, and esoteric testing, such as Estriols. These are directly beneficial to the patient and physician, not only because they are available with good turnaround time, but because they are technically better, thanks to repetitive testing and the subsequent improvement in quality. They also cost money. That money comes from the total laboratory service, which includes the simple tests and the routine tests—the "bread and butter" items.

Part of the dollar income to do all that I have mentioned—the dollars critical to service, growth, creation of jobs for Medical Technologists, and dollars to allow low or reasonable test fees—are related to high volume. These dollars are being eroded, not only by the previously mentioned factors but also by

ISMA Resolution 81-24
Clinical Laboratory Tests Referred Out of State of Indiana

Resolved, That the pathologists, laboratories, and practicing physicians in this state endeavor wherever at all possible to refer laboratory testing to qualified local, regional and state laboratories so that the functional integrity of these necessary facilities may be maintained; and be it further

Resolved, That the medical laboratories and pathologists in Indiana identify the needs of the physician and patients in Indiana and endeavor to fulfill these needs.

having routine tests or referred tests performed out of state. These dollars are in the millions per year from Indiana alone. They are from pathologists and clinical physicians. They are dollars *lost* to the economy of the hospitals, laboratories, personnel, and counties of Indiana.

I believe that this problem needs to be addressed. We need to work together to keep laboratory testing in our own hospital laboratories or private laboratories. The testing could be sent to another laboratory close by or at least to a reference laboratory within Indiana. There is nothing that commercial laboratories can offer that we cannot offer with the proper direction, volume and support.

With this in mind and in an attempt to "get a handle" on the facets of the problem, a questionnaire was sent to the 163 active members of the Indiana Association of Pathologists. A compilation of data resulting from the questionnaire was informative. We received only 31 replies.

Obviously, the data are incomplete since not every pathologist (or group) responded and none of the referred, out-of-state work from non-pathologists was surveyed. It is my belief, from the figures obtained, that the dollar figure for pathologists' reference work is close to the $6 million level and that this probably represents the tip of the iceberg when looking at work referred out of state by non-pathologists. This probably raises the total annual figure for laboratory work sent out of Indiana to $10-15 million.

For these reasons, a resolution, 81-24, was submitted and subsequently adopted with modification in the House of Delegates at the 1981 Indiana State Medical Association meeting. The purpose of the resolution was to help stimulate thinking, awareness, and dialogue between physicians in Indiana about the problem. That is also the purpose of this article—to acquaint you with the problem of lost revenue due to out-of-state laboratory testing and what the loss can mean in the future of the clinical laboratories in the state of Indiana.

As pathologists, we have to work with each other to provide the patient and you, the clinician, with a timely, quality laboratory service that is equal to or better than the services of out-of-state laboratories—at a competitive fee. We have to meet and correct if possible our laboratories' deficiencies and problems to better serve you. This takes communication and understanding among all of us. It is up to the clinician to help point out these problems, but also to give support. It *is* a mutual problem, and one that needs to be, and can be, addressed and solved. The ultimate benefactor is the patient now and in the future.

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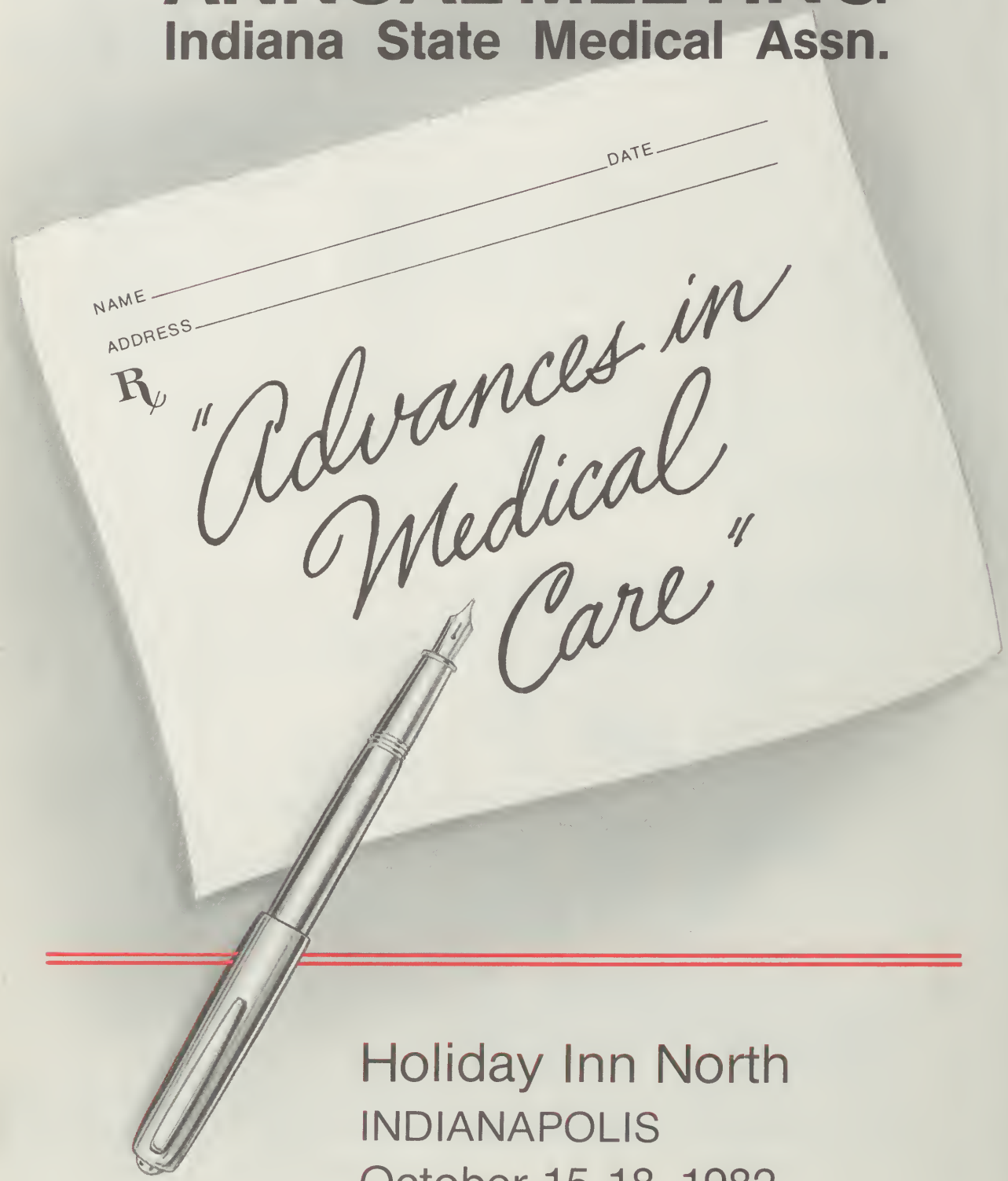
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The Physician's Sleep Glossary

Some common sleep laboratory terms

poly•som•no•graph. An instrument which simultaneously records by electrodes physiological variables during sleep—for example, brain activity (EEG), eye movements (EOG), muscle tonus (EMG) and other electrophysiological variables. These readings indicate precisely when patients fall asleep, how many wake periods they experience, the quality of sleep and the duration of sleep.

sleep la•ten•cy. The period of time measured from "lights out," or bedtime, to the commencement or onset of sleep.

wake time af•ter sleep on•set. Intervals of time spent awake between onset of sleep and the end of the sleep period. The polysomnograph registers the length and frequency of the intervals.

to•tal sleep time. The amount of time actually spent in sleeping. This is estimated by subtracting wake times from the period encompassed by the onset and the termination of sleep.[1]

REM/NREM. 1. REM, or rapid eye movement, sleep is "active"—characterized by increased metabolic rates, elevated temperature and arousal-type EEG patterns. 2. NREM, or non-rapid eye movement, sleep represents "quiet" sleep stages. There are four distinct stages of NREM sleep.[2]

re•bound in•som•nia. A statistically significant worsening of sleep compared to baseline on the nights immediately following discontinuation of sleep medication.[3]

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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

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Patient Information and Education

A Statement by the National Council on Drugs

Providing patients with supplemental information about prescription drugs is generally desirable, with certain considerations

From the National Council on Drugs, 99 Park Ave., New York, N.Y. 10016.

THE NATIONAL COUNCIL on Drugs recognizes that patients require information concerning their illness and/or its treatment if optimal therapeutic effects are to be achieved. The NCD also recognizes that all patients have the right to know (and perhaps to be taught) anything they desire regarding the pathophysiology, diagnosis, and treatment of their disease. It further recognizes that appropriate methods are needed to overcome the barriers to the dissemination of information to patients.

Since information about the diagnosis and treatment of disease is in the public domain, it is available to those patients who are sufficiently interested, motivated, and knowledgeable to seek it out. The issue in the public debate regarding patient information and education does not revolve around the availability of the information, but rather its accessibility. Who has the responsibility to make the information more accessible to patients? What are the most effective methods for its dissemination? Does dissemination include the interpretation of factual information by the practitioner?

Any discussion of patient education requires that the information needs of the patient be separated into two areas:

- The information that should be considered about a disease or diagnosis and/or treatment process in order to make an informed decision on what the patient will do or allow to have done (informed consent). This information varies in complexity and importance depending upon the seriousness of the disease and the risk involved in adopting the diagnostic or treatment procedures. This requires full disclosure of benefit and risk as well as an assessment of the patient's ability to comprehend. Through this process, patients will be able to weigh the alternatives in arriving at therapeutic decisions.
- The information that a patient needs to know in order to follow a treatment regimen so that the effectiveness of the procedure may be maximized and the desired outcome may be achieved. This information is much more limited in scope and needs to be matched to the patient's ability to understand and follow instructions. If one assumes that an informed decision has been made, this second set must not be shackled with "full disclosure" requirements and can be written or otherwise presented in clear, precise language and in explicit detail. Reinforcement of instructions by all of the provider network is desirable and the enlistment of the patient's support system at this point is most helpful. Any educational device may be employed that would have an effect on the desired results.

Some may argue that Patient Package Inserts (PPIs) can be designed to contain the information that patients require to

make an informed decision about the use of a drug product. But few would argue that a single, standardized document can be developed to meet the informational needs and to achieve the necessary behavioral outcomes for all patients, for all conditions.

The National Council on Drugs recognizes the desirability of developing better methods for patient education and agrees in principle with the concept that patients have a right to be informed about the therapeutic agents prescribed for them. Thus, the Council shares with the Food and Drug Administration and others the view that providing supplemental information to patients about prescription drugs is generally a desirable objective, with the following considerations:

1. Health care professionals (physicians, pharmacists, nurses, dentists and others) are and should continue to be principal sources of drug information for patients.

2. Health care organizations, both academic and professional, should be encouraged to expand their efforts in support of patient educational activities by practitioners.

3. Since no single source of information can or should be expected to meet the informational needs of all patients, professional judgment, based upon expert knowledge and skill, should continue to be a major factor in the determination of the types of information provided to patients.

4. The subject of written drug information (e.g., Patient Package Inserts) should be approached without preconceived notions of their inevitable value as a way of transferring knowledge.

5. Legislation and/or regulations mandating the development and distribution of PPIs should be deferred until studies of various approaches can be conducted and evaluated.

Because of the finite limits on both patient and provider resources (e.g., time, staff, skill, money), the NCD cautions against the premature adoption of "quick fix" answers to the informational needs problem. Rather, the NCD suggests the careful development of informational sets, based upon the seriousness of the health problem and upon benefit-risk criteria, followed by evaluative studies of their effectiveness. Such studies should include an assessment of the methodology for dissemination, the depth of interpretation required, the impact of the provider network, as well as the effect on patients' health.

Only in this manner can an effective patient educational system be developed that will improve the way in which patients utilize drug therapy.



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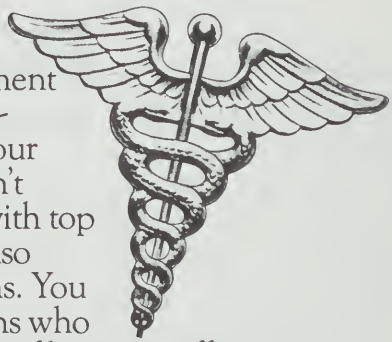
Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

Category:	**TERFONYL**	**TOFRANIL**
Brand Name:	Sulfonamide	Antidepressant
Generic Name:	Terfonyl, Squibb	Tofranil, Geigy
Dosage Forms:	Multiple sulfonamide	Imipramine HCl
	Tablets, Suspension	Tablets, Capsules, Injection
Category:	**MINTEZOL**	**METRAZOL**
Brand Name:	Anthelmintic	Psychotherapeutic
Generic Name:	Mintezol, MSD	Metrazol, Knoll
Dosage Forms:	Thiabendazole	Pentylenetetrazol
	Chewable Tablets, Oral Suspension	Tablets, Elixir, Injection

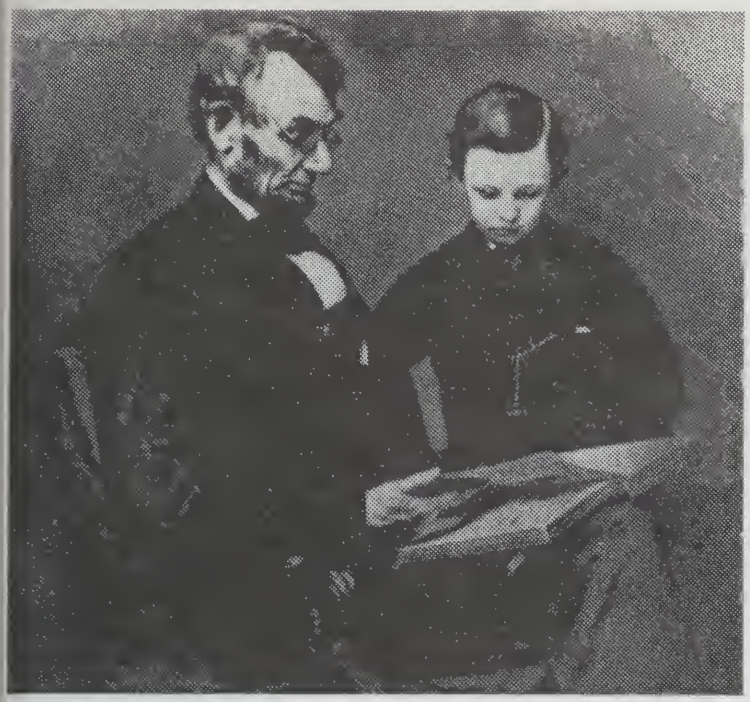
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Comparison of Anorectics

	Agent	Amine Classification	Half-life[a]	Variety of Dosage Form	Degree of CNS Effects
Low Abuse Potential	**Diethylpropion**	Tertiary	4-6 hrs.	25 mg tablet, 75 mg controlled-release tablet	Mild euphoria, mild stimulation
	Mazindol	Nonphenylethyl-amine	33-55 hrs.	1 & 2 mg tablet	Mild euphoria, mild stimulation
	Fenfluramine	Secondary	10-30 hrs.	20 mg tablet	Moderate sedation (mild to moderate depression, a side effect, is also sometimes designated as a CNS effect)
	Phentermine	Primary	19-24 hrs.	8 & 37.5 mg tablet, 8, 15 & 30 mg capsule 15 & 30 mg capsule (resin complex) 15 & 30 mg timed release capsule	Mild euphoria, moderate stimulation
High Abuse Potential	**Phenmetrazine**	Secondary	7-9 hrs.	25 mg tablet, 50 & 75 mg prolonged action tablet	Marked euphoria, marked stimulation
	Amphetamine	Primary	10-30 hrs.	Various	Marked euphoria, marked stimulation

[a]Delayed release characteristics of certain dosage forms must also be taken into account.

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Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personalty changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of June, 1980

Reference: 1. Abramson R, Garg M, Cioffari A, and Rotman PA; An Evaluation of Behavioral Techniques Reinforced with an Anorectic Drug in a Double-Blind Weight Loss Study. J Clin Psych 41:234-237, 1980.

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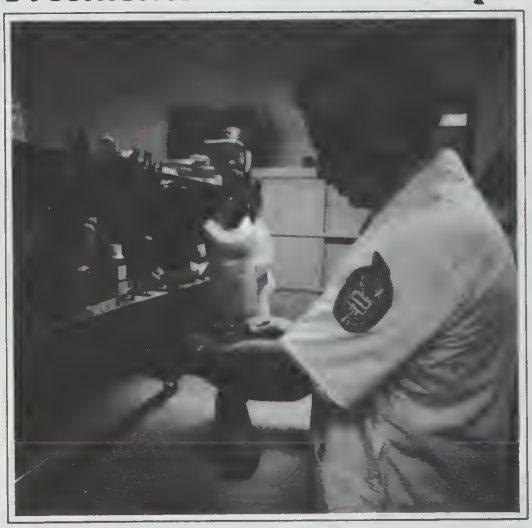
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Management of Adult Osteomyelitis

ROBERT A. COLYER, M.D.
Indianapolis

OSTEOMYELITIS continues to be a difficult infection to manage despite the antibiotic era. Mortality and grotesque deformity usually can be avoided today, but severe loss of limb function, recurrent infection, and amputation persist as common sequelae of osteomyelitis.

Treatment results of acute childhood hematogenous osteomyelitis are generally better today because of increased promptness of appropriate management. Adult osteomyelitis, however, continues to produce too high a percentage of poor results. Adult osteomyelitis should be considered separately from childhood osteomyelitis because of several important differences.

Acute childhood hematogenous osteomyelitis usually occurs in an otherwise healthy child in certain specific bone locations—the metaphysis of long bones. The abrupt hairpin turn of metaphyseal blood vessels below the cartilaginous growth plate allows the bacterial emboli in the bloodstream to lodge and start a focus of acute infection in a protected area. The acute infection and the host defense response make it likely that significant symptoms will promptly cause the child to enter the health care system. Treatment can then be started early to minimize infection spread and bone destruction. The quick appearance of significant symptoms, a generally healthy patient, normal periosseous soft tissue and bone blood supply, and bone stability make treatment effective. Serious consequences can still result if diagnosis and appropriate treatment are delayed.

Adult osteomyelitis generally has complicating features that make treatment more formidable. First, adult osteomyelitis usually is not hematogenous but rather a complication of local trauma. The local trauma may be an open fracture, bone surgery, or a contiguous soft tissue infection. The trauma commonly diminishes the bone's blood supply and exposes the bone to the outside environment. This increases the area of infection and decreases the ability of the body defense mechanisms to combat the infection. As an example, when an open tibia fracture is first noted to be clinically infected, the infection is not localized to a small focus but involves large areas of the bone and soft tissue. The infection is already more advanced than most cases of acute childhood hematogenous osteomyelitis.

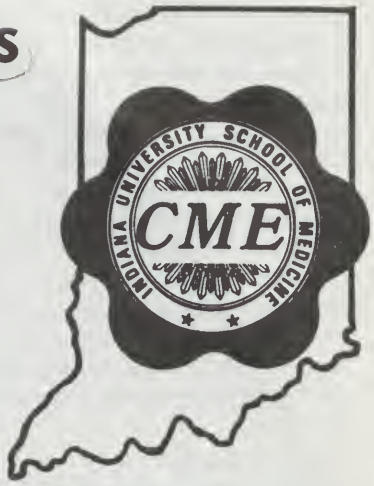
Second, the adult with osteomyelitis is commonly not in perfect health. The host defense mechanisms may not be able to function properly to limit the spread of infection through the bone and soft tissue. Not only will the adult patient with a systemic illness, such as diabetes mellitus, have an impaired immune system but, also, the multitraumatized patient will be at a disadvantage in combating infection. A properly functioning host defense mechansim is indispensible in eradicating severe infection.

Third, the adult patient usually will have more bone destruction before treatment commences. This can be a result of the above two factors. In addition, the acute symptomatology of the child does not readily occur in the adult, delaying a difficult diagnosis and treatment.

Fourth, adult osteomyelitis commonly occurs in bones that are unstable from fracture or operations. Therefore, bone healing plus infection control must be considered in treatment plans.

The last difference between adult and childhood osteomyelitis is that large foreign bodies are more commonly present in the infection site in adults. The foreign body may be an artificial joint replacement or an internal fixation device for fracture. The presence of the foreign body makes infection eradica-

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tion very difficult for the host defense mechanisms.

These five differences, plus the child's quicker bone repair, make the treatment of adult osteomyelitis significantly different from the treatment of acute childhood hematogenous osteomyelitis. The generally greater bone involvement and destruction increase the importance of surgical management in adults. A relatively simple aspiration of the focus of infection, supplemented by an appropriate antibiotic, usually will not suffice in the adult osteomyelitis patient.

Pathophysiology

Adults do not have the propensity to develop hematogenous osteomyelitis. Most adult infections are the result of direct bacterial contamination from open fractures or surgical procedures. Contiguous soft tissue abscesses also can spread to involve the bone. Hematogenous infection can occur, especially if a foreign body has been implanted,[4] such as a joint replacement or an internal fixation device. But even with the foreign body, most infections are still due to direct contamination at surgery.

The devascularization of large areas of bone is the most important pathophysiologic event pertaining to management techniques. The devascularized areas (sequestra) become a haven for bacteria protected from both the body defense mechanisms and antibiotics. The presence of sequestra make osteomyelitis different from other body infections.

Sequestra are formed as the purulent focus expands through channels of least resistance. The expansion is driven by bacterial growth, breakdown of tissues by the bacterial proteolytic enzymes, and attraction of water into the purulence by osmotic forces due to the increased concentration of protein breakdown products. In bone the path of least resistance is the Haversian system, an interconnected maze of channels that allow passage of blood vessels to the interior of the bone. Hence, with expansion, the bones' blood supply is destroyed, producing sequestra. The longer the infection is present, the larger the area of bone devascularized.

If the infection expands to perforate the bone cortex, the periosteum is lifted, destroying the periosteal blood supply of bone. Whole bones can become sequestra in this manner. The lifting of the periosteum provokes the periosteal bone formation seen on x-ray. This periosteal reaction indicates the infection has spread outside the cortical bone.

If the infection is controlled so that further expansion is stopped, the sequestra remain. Resorption of the dead bone is severely hindered by two factors. Bone resorption by osteoclasts requires an adequate blood supply, which has been destroyed and must be reformed. Secondly, as neovascularization occurs and the sequestra are resorbed, activation of dormant bacteria occurs and infection begins anew. This repetitive ignition of infection produces the chronic nature of osteomyelitis.

The host defense mechanisms aided by appropriate parenteral antibiotics can control and eliminate bone infection but only in areas with sufficient vascular supply. As previously mentioned, adult osteomyelitis has several differences as contrasted with childhood osteomyelitis. Three of these differences greatly affect vascular supply.

The periosseous soft tissue damage, periosteal stripping, and nutrient artery disruption seen in high energy (i.e., motorcycle accidents) fractures and surgical procedures reduce the bone vascular supply even without infection. Bones have two major blood avenues—endosteally by nutrient arteries, and periosteally where muscles attach to the bone. Replacement of the vascular supply to a segment of bone can be prompt with fracture but not in the presence of infection.

The generally greater time before diagnosis in adults allows larger amounts of sequestrum to form and also disrupts, in this longer time, larger blood vessels. This may devascularize areas of bone not even infected as yet.

The third difference affecting vascular supply is the presence of instability. Budding neovascularization channels are fragile and bone nonunion allows disruptive movement. Bones need stability to repair fractures and to allow neovascularization to clear infection.

Therefore, osteomyelitis is made a unique infection because of the production of poorly resorbed and sterilized sequestra. Adult osteomyelitis has an increased amount of sequestrum as compared to childhood osteomyelitis. Also the bones' vascular supply in adults is generally impaired in addition to the infection, which further complicates the body's removal of the sequestra. This poor vascular supply and neovascularization response not only impairs the host defense mechanisms against infection but also the reconstruction phase. Even with infection control and osseous union, the bone may take years to obtain its required physical strength.

Staphylococcus aureus has been the predominant bacterium causing osteomyelitis in both children and adults. It remains the most common pathogen. Over recent years, other bacteria are increasingly found in adult osteomyelitis. Bacteria once considered nonpathogenic, such as *Staphylococcus epidermidis,* are well described pathogens, especially when metal implants are present. Anaerobic organisms, well suited for a sequestral habitat, are increasingly cultured.

Today, osteomyelitis, especially in adults, is not routinely a *Staphylococcus aureus* infection, and other bacteria commonly will be seen. This may be because of the increasing use of prophylatic antibiotics used in the perioperative period and routinely administered in open fractures. These prophylatic antibiotics almost always are directed primarily at *Staphylococcus aureus.*

Management

Management of adult osteomyelitis begins with prevention. The most preventable type is that following open fractures. All open fractures are surgical emergencies requiring prompt debridement of already contaminated tissues.

These contaminated wounds, with soft tissue damage and bone devascularization, obviously can set the stage for chronic osteomyelitis if not properly managed. Wound closure should not be an immediate goal since vascularized exposed bone does well and closure potentiates the risk of severe infection. Antibiotic administration in open fractures is appropriate, with cephalosporins being currently favored.

Acute and chronic osteomyelitis are treated similarly, with the differences being urgency of treatment and magnitude of surgery. Acute osteomyelitis needs prompt recognition and treatment to limit the amount of dead bone created. There should be no hesitancy to reopen post-operative wounds and completely debride devitalized tissue. Surgical delay, with dependency on antibiotics only, is doomed to long-term failure in the presence of adult osteomyelitis. The short-term benefit of not reopening infected orthopedic wounds promotes long-term liabilities.

Chronic osteomyelitis, the main subject of this section, can be approached with less urgency. The bacteria and host defense mechanism usually will be at a stalemate, and careful study can improve results. Two important components of treatment need pretreatment information to be administered most effectively. These components are antibiotics and surgical debridement.

Antibiotic choice must be based on deep bone cultures. Preoperative antibiotic administration can block culture growth of the infecting organism or allow growth of only some infecting bacteria. One-third of adult osteomyelitis patients treated at Indiana University Hospital, by me, have had multiple organisms grown from deep bone cultures. Obviously, the wound drainage culture may not correlate at all with deep bone infecting bacteria.

Anaerobic organisms are not uncommon pathogens in chronic osteomyelitis, and anaerobic cultures must be included. One-third of my patients grew an anaerobic organism either alone or in combination with aerobic bacteria. Operative cultures should be plated quickly and not allowed to set out for hours. Do not discount growth of bacteria commonly considered contaminants from deep bone cultures. These bacteria can cause clinically significant chronic osteomyelitis and must be covered with antibiotics.

The second treatment component needing pre-treatment information is surgical debridement of the sequestra. Regular x-rays can demonstrate a large sequestrum, but AP and lateral tomograms usually are needed to accurately localize all large sequestra. The surgical approach for debridement will depend on the location of the sequestra.

Management of adult chronic osteomyelitis is a lengthy process usually involving several operative procedures and a long hospital stay. Before embarking on this course, the physician and patient, together, must decide whether amputation would be a more preferable choice. When the infection's location would allow amputation below the knee, full functional restoration to most adult levels can be anticipated in 3-6 months. The nonamputation approach outlined later can take up to one year and has a higher risk of failure. Above knee or upper extremity amputations would decrease functional return. There are no rigid guidelines to make this decision. A well informed patient and a careful listening physician will usually make the right choice.

Several factors sway me toward advising amputation. Associated major neural deficits (i.e., anesthetic foot), significant nonrepairable ischemia of the limb, and associated musculoskeletal deficits below the infection, which will severely compromise limb function even if the infection is eliminated, all make amputation a better choice.

If the decision is made to save the limb, the first step is to eliminate the infection. An extensive debridement of devascularized bone and soft tissue removes tissue that the host defense mechanisms and antibiotics cannot reach. It also provides an accurate specimen for culture. This debridement must leave only bleeding bone edges and cannot be done with reconstruction in mind. Reconstruction will not be possible until infection is controlled. Also, antibiotics cannot be relied on to reach obviously dead bone. The amount of bone stock debrided usually is quite large in chronic infections. Good bleeding edges is the main determinant to ending the debridement.

The wound is best left open no matter how much bone is exposed. Closed wounds hinder adequate wound drainage, which is critical to facilitate host defense mechanisms. Open wounds also allow daily wound irrigation. Twice daily debridement with whirlpools or wet to dry dressing changes continues the debridement process. Repeat surgical debridement may be necessary if wound inspection reveals areas of bone or soft tissue that continue to be poorly vascularized.

Infection can occur after implantation of a foreign body such as a total hip or knee prosthesis or internal fixation device. If the infection is acute in the postoperative course, adequate debridement may not require removal of the implant. Certainly, if an internal fixation device solidly stabilizes a fracture, it should be retained until fracture healing occurs.[3] If it does not stabilize, then removal is indicated. It will be difficult for the host defense mechanism to completely eradicate bacteria around the metal until it is removed when it is no longer needed for stability. Artificial joints that become infected are more controversial. One would obviously hope to keep the joint function they provide, but again total bacterial eradication may be impossible for the host defense. Gram-positive organisms are better managed by keeping the artificial joint. Gram-negative ones almost always will necessitate prosthetic removal if infection is to be controlled. One recent alternative is to remove the joint prosthesis and methyl methacrylate cement, treat 4-6 weeks with high dose antibiotics, and then reimplant the artificial joint. This remains an experimental approach.

The wound and bone are ready for

reconstruction when all surfaces are covered with healthy pink granulation tissue. This usually takes one to two weeks. This appearance of granulation tissue is the proof that all exposed tissues have an adequate blood supply and that infection is controlled. It is the only conclusive sign that reconstruction can begin.

During this time of continuing debridement, the host defense mechanisms must be aided with high dose antibiotics. The antibiotics, based on the deep bone culture, must cover all bacteria that were cultured. Intravenous administration most reliably provides adequate tissue levels.

With the appearance of good granulation tissue and infection control, the bone deficit is ready for reconstruction. Bone repair mechanisms are very slow in this clincial setting and fracture may occur if the bone bridge after debridement is inadequate. Autogenous cancellous bone grafts are rapidly incorporated[1] and remodeled along lines of stress in the presence of a good vascular bed. If the site of infection was a nonunion, cancellous graft is needed to speed bony union as well as replace bone stock removed by the debridement. The bone graft may be quite large and require harvesting from several sources, such as the anterior or posterior iliac crests, greater trochanter of the femur, or tibial plateau. Best results are achieved if the graft is packed in tightly and completely fills the deficit. Cortical bone grafts are to be avoided since they incorporate very slowly and risk becoming sequestra themselves.

Bone instability with nonunion, as has been mentioned, inhibits neovascularization and bone repair. Stabilization can be accomplished by various means—casts, external fixation, or internal fixation. All have advantages and disadvantages depending on the particular clinical setting. The important point is that treating the nonunion with effective stabilization not only promotes bone healing with neovascularization but this same ingrowth of blood vessels combats infection.

A totally reconstructed bone is not only healed and noninfected but is also surrounded by adequate soft tissue. In adult osteomyelitis, soft tissue regeneration may not occur spontaneously despite reconstitution of the bone. The tibia, a common site of chronic osteomyelitis, especially has difficulty obtaining adequate anterior soft tissue coverage. Recurrent skin breakdown in this area from trivial trauma risks recurrent new bone infection. Also, the periosseous soft tissue supplies a significant vascular supply to the bone. While without the full complement of blood supply a bone may heal, remodeling along stress lines to a fully functional weight-bearing structure may be seriously delayed. Refracture after trivial falls is not uncommon in poorly remodeled bones in this situation. Because the soft tissue covering is poor, these refractures, even though low energy in type, usually are open, risking renewed infection.

Soft tissue reconstruction then completes the management of adult osteomyelitis.[2] Too often, soft tissue reconstruction is performed prior to infection control and is doomed to failure. On the other hand, too long a delay in its performance can significantly prolong fracture healing. It should be performed after the bone debridement and after infection is controlled, but need not be delayed until after the bone is healed. The soft tissue reconstruction can consist of local tissue flaps, skin grafts, pedicle flaps, or, more recently, free microvascular anastomosed distant muscle flaps.

The increased periosseous blood supply that results from successful soft tissue reconstruction significantly speeds bone healing, promotes quicker bone remodeling, and aids in the eradication of infection.

The length of time antibiotics are continued is controversial and basically unanswered. Six weeks has become a standard time frame for intravenous administration, but really has little solid rationale or documented superiority over other time frames. The time span of oral antibiotics after hospital discharge is even more speculative. Although no definitive answer can be given, a prudent antibiotic regimen would include a 4-6 week course of intravenous administration with a further 3-6 months course of outpatient oral use. Some pathogens will not be sensitive to any oral antibiotics, and six weeks of intravenous drugs would be appropriate.

Lastly, there has been speculation in the past that certain antibiotics were excluded by a blood-bone barrier. Recent evidence suggests a blood-bone barrier does not exist for any family of antibiotics. Hence, appropriate antibiotics based on an appropriate culture and given in appropriate dosage are more important than the specific antibiotic chosen.

Summary

Adult osteomyelitis is always a serious problem with significant differences in contrast to acute childhood hematogenous osteomyelitis. Successful management requires consideration of multiple factors and intensive care. Simple surgical procedures and antibiotics rarely will return an infected adult bone to full function. Eradication of infection must occur before reconstruction. Reconstruction is not complete without healthy periosseous soft tissue. Although the problem of adult osteomyelitis is severe, amputation is not always necessary. Even with nonunion and years of chronicity, success is possible in a high percentage of cases with proper management.

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Cephalosporium (acremonium) in Dialysis-Connected Peritonitis

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ACREMONIUM* is a common hyphomycetous fungus ordinarily saprophytic, but incriminated as a causative agent in a variety of settings. Mycetomas and other ulcerative skin lesions often have been accepted as being caused by Acremonium species,[7] and occasional spread by bloodway also has been recorded.[1,4] Corneal infection frequently is associated with culturing Acremonium species from the scrapings; pleural involvement[2] has been reported, and the organism was grown from a dialysis fistula.[6]

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*Gams[3] rejected the genus *Cephalosporium* because the type species of this genus was a species of *Mortierella*. Therefore, *Acremonium* was the genus selected to receive transfers from this taxon.

Case Report

Our patient, a 68-year-old man of Hispanic extraction, entered the hospital for "routine peritoneal dialysis" suffering from end-stage diabetic nephropathy.

Klebsiella species was cultured from the dialysate, therapy with gentamicin, chloramphenicol, and carbenicillin was started, and he showed initial improvement. At the same time, for the last 22 days of life, prednisolone was given at a daily dose of 10 mg.

On the 8th day of hospitalization, the patient went into shock and, since the antibacterial therapy seemed insufficient, and in the presence of oral lesions of candidosis, amphotericin B was added to the regimen. In spite of all efforts, the patient slipped slowly away and died on the 31st day of hospitalization.

On the 21st and 22nd days (on the latter date twice), samples of dialysate were sent to the laboratory, and hyphae were seen on direct (KOH) microscopy. Independent cultures from each of the samples grew a dark, rose-colored mold that covered itself with a white cottony growth; this showed on slide culture the development of slender, unbranched conidiophores, which bear a spherical cluster of conidia at the tip. These conidia, which were produced singly from the tip of the conidiophore, were elliptical and generally single-celled; however, occasional septations were seen. The conidia were borne in clusters but it appeared that these clusters could be dissociated easily.

Since *Cephalosporium (acremonium)* is so often seen as inoculation disease, it seems necessary to mention the possibility that the organism was introduced with the dialysis procedure.

Only 105 mg of amphotericin B was given to the patient, a dose which would not be expected to be curative for an Acremonium infection, especially since sensitivity to the drug varies greatly from one isolate to another.

The source of infection can only be conjectural, but in view of the necessary manipulations connected with peritoneal dialysis, the procedure is highly suspicious as leading to infection.

Summary

A patient with end-stage diabetic nephropathy is presented, who had three successive cultures of peritoneal dialysate, which grew *Cephalosporium (acremonium)* species. It is our conclusion that this represents parenchymal infection with Acremonium, rarely reported to be pathogenic except involving the integument in man.

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Antimicrobial Therapy in Patients with Impaired Renal Function

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IMPROVEMENTS in the management of patients with renal insufficiency and the development of complex, effective antibiotics have generated a large patient population in whom understanding of the metabolism and excretion of antimicrobial agents is important. Safe and effective antimicrobial therapy depends on several factors that may be altered in patients with renal failure.

Absorption of antibiotics from the gastrointestinal tract may be variable in such patients and serious infections are usually treated with parenterally administered drugs. Protein binding plays an important role in the *in vivo* activity of antimicrobials. The percentage of drug bound to plasma proteins determines the quantity of free, active drug and the amount eliminated by glomerular filtration or dialysis.

Changes in muscle mass, plasma proteins, and fluid retention or depletion are common in patients with renal failure. The volume of distribution of antimicrobials in such patients may vary accordingly. Metabolic degradation may be enhanced or inhibited by uremia, altering dosage requirements.

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Perhaps the most important aspect of the use of antimicrobials in renal insufficiency is the diminished excretion of unchanged drug and active metabolites. Precise pharmacokinetic measurements are now possible and the results of such studies are quoted in this review.[1-3]

Simplified Nomogram for Antimicrobial Dosage in Renal Failure

A unifying nomogram for estimating dosage in patients with renal insufficiency is presented in *Figure 1*. We have included only those antimicrobials used commonly in patients with renal impairment. To use the nomogram, measure or estimate the patient's creatinine clearance from *Figure 2*. Identify the appropriate regression line (A, B, C, or D) for the desired antimicrobial agent. Determine the maintenance dose by multiplying the normal dose (mg/kg/day) by the dose fraction determined from *Figure 1*.

Aminoglycosides

Aminoglycosides are eliminated from the body almost exclusively by glomerular filtration. Careful dosage modifications are needed in patients with renal impairment to avoid serious ototoxicity and nephrotoxicity. The importance of following aminoglycoside concentrations and frequent measurements of renal function cannot be overemphasized. The initial dose of gentamicin or tobramycin is unaltered by renal function. The loading dose provides a rapid increase in plasma concentration to within the therapeutic range. Multiple formulas have been generated to maintain nontoxic, steady-state concentrations. We have found the nomogram outlined in *Figure 1* most helpful.

The capacity to determine gentamicin and tobramycin serum concentrations is now available in most hospitals. Peak serum concentrations of 6-8 μg/ml and trough concentrations of 1-3 μg/ml provide optimal antimicrobial therapy. Serial concentrations should be measured to document that safe, steady-state concentrations have been achieved and maintained.

Aminoglycosides are removed from plasma by hemodialysis and peritoneal dialysis. For gentamicin and tobramycin, reloading doses of 1 mg/kg following hemodialysis treatments are effective. The addition of 5 mg of gentamicin or tobramycin to each liter of peritoneal dialysate during concomitant parenteral therapy maintains adequate serum concentrations.

Antifungal Agents

Amphotericin B is a nephrotoxic agent used for treating deep-seated fungal infections. Decreasing renal function is commonly observed during therapy, but glomerular filtration rate appears to have little effect on serum concentration. Authorities feel the dose need not be altered except in severe renal failure where the dose may be decreased by one-fourth. Amphotericin B is highly protein bound and is not removed by hemodialysis.

Flucytosine is a newer, less toxic agent that is excreted by the kidneys. The appropriate dose fraction may be found by following regression line B on *Figure 1*. Flucytosine is removed from plasma by hemodialysis. Single doses of 25-50 mg/kg body weight postdialysis have produced non-toxic, therapeutic concentrations in patients undergoing hemodialysis every 48 to 72 hours.

Frequent monitoring of serum concentrations is recommended.

Antituberculous Agents

Isoniazid is predominantly eliminated from the body by hepatic acetylation to an inactive metabolite. In patients in whom rapid acetylation occurs, no dosage alteration is required in renal insufficiency. In slow acetylators, the dosage should be reduced by one-third if the creatinine clearance is less than 10 ml/min. Isoniazid is removed by hemodialysis, and serum concentrations may be followed as a guide to dosage.

Rifampin is also primarily excreted by the liver and is not removed by hemodialysis to any significant degree. The dose need not be altered in renal failure. Isolated case reports of nephrotoxicity have been reported in patients receiving rifampin, and renal function should be monitored.

Ethambutol is excreted only via the kidneys. Dosage should be adjusted according to line D in *Figure 1* to avoid ocular toxicity.

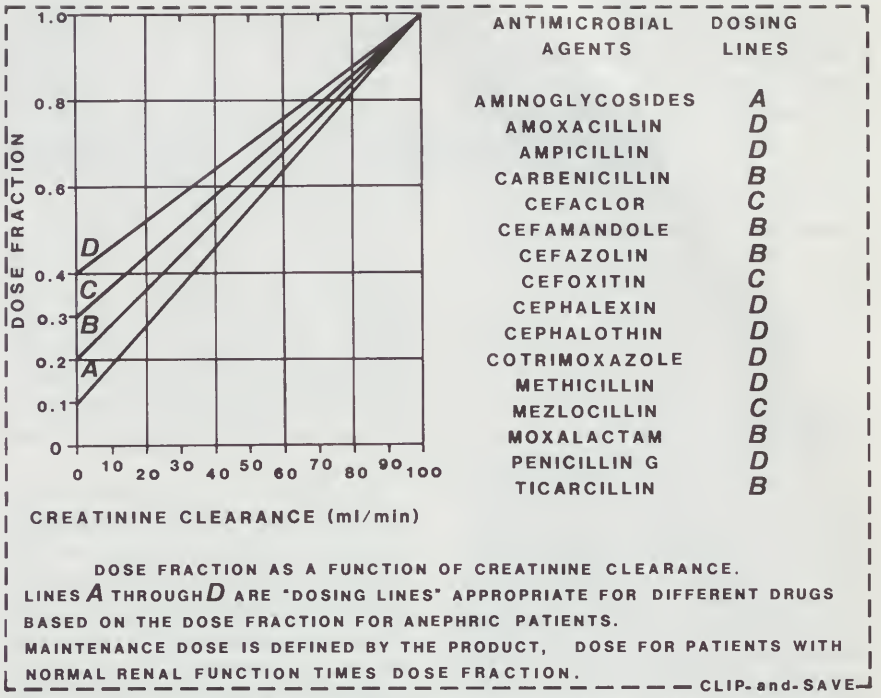


Figure 1: Nomogram for estimation of antimicrobial dosage in renal insufficiency.

Cephalosporins

Cephalothin and its related compounds are primarily excreted by the kidneys, and nephrotoxicity is rarely observed. Cephalothin, cefaclor, cefamandole, cefoxitin, cefazolin and cephalexin follow similar pharmacokinetics. Appropriate doses may be obtained from the regression line on *Figure 1*. We have found cefazolin particularly useful in patients with renal insufficiency. If the creatinine clearance is less than 20 ml/min., 500 mg of cefazolin in every 12 hours is sufficient. If the creatinine clearance is less than 5 ml/min., 250 mg twice daily, following a loading dose of 500 mg will suffice. Cephalosporins are removed from plasma by hemodialysis, and a maintenance dose should be administered after dialysis.

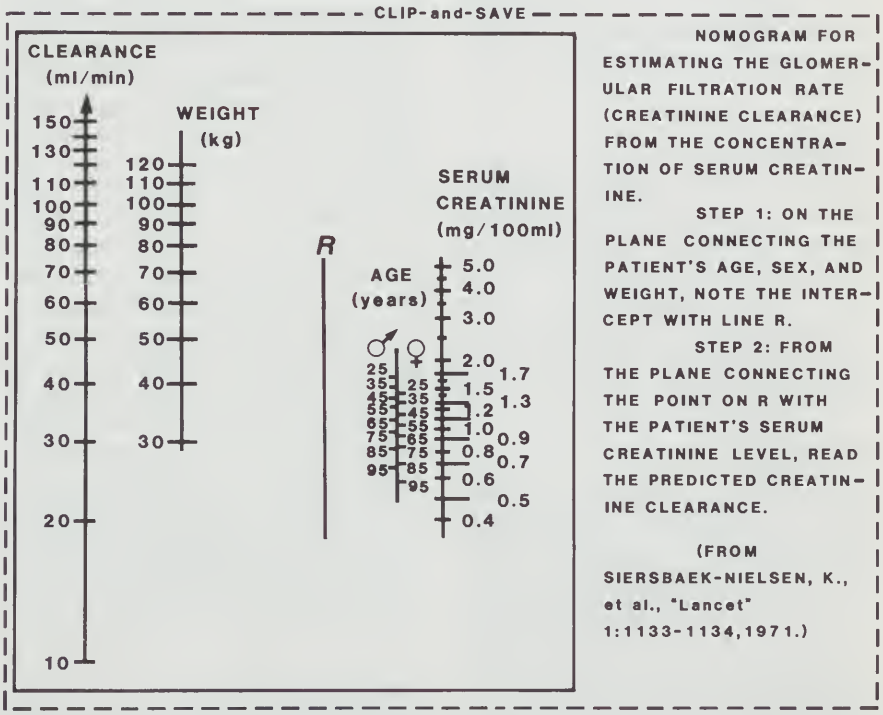


Figure 2: Nomogram for estimation of glomerular filtration rate from serum creatinine concentration.

Chloramphenicol

Chloramphenicol is excreted primarily by hepatic conjugation with gluc-

uronide; no alteration in dose is necessary even in severe renal insufficiency. However, dose-related, reversible, hematopoietic depression may be more common in patients with impaired renal function. The mechanism is unclear, but it may be related to accumulation of toxic metabolites normally excreted by the kidneys. Hematopoietic function must be monitored carefully throughout the course of therapy.

Erythromycin, Clindamycin, Lincomycin

Erythromycin and clindamycin are metabolized primarily by non-renal mechanisms and are essentially nontoxic when given in usual therapeutic doses to patients with impaired renal function. However, some investigators suggest that, with severe renal failure, erythromycin dosage should be decreased.

Lincomycin exhibits a prolonged half-life in renal insufficiency. The normal dose of lincomycin should be reduced by one-half in patients with renal failure. Hemodialysis does not significantly alter the plasma concentrations of these agents.

Nitrofurantoin

Nitrofurantoin should not be used in patients with renal insufficiency. It is ineffective therapy for urinary tract infections when the creatinine clearance is less than 30 ml/min. Moreover, the accumulation of toxic metabolites produces peripheral neuropathy and interstitial pneumonitis.

Penicillins

The half-life of penicillin G is prolonged in renal failure; however, toxic accumulation does not occur with doses less than 10 million units per day. Therapeutic plasma concentrations may be attained with diminished doses according to regression line D of *Figure 1*. Ampicillin also has a prolonged half-life in renal failure, and the incidence of toxic side effects may be increased. No more than one half the normal dose is necessary in moderate renal insufficiency. The daily dose should not exceed 2 g in severe renal failure. Although both penicillin and ampicillin are removed by hemodialysis, the dosage schedule generally need not be altered.

Methicillin, oxacillin, and nafcillin are antistaphlococcal semisynthetic penicillins. Nafcillin is dependent largely on hepatic inactivation for elimination from the blood. No alteration in dose is necessary even in severe renal failure. The dose of methicillin should be altered accordingly to regression in line D of *Figure 1*.

Dicloxacillin is also an effective antistaphylococcal agent and has the added advantage of oral administration. Dicloxacillin undergoes some renal excretion, but no modification in the dose is necessary. Hemodialysis does not significantly alter the therapeutic regimen.

Carbenicillin and ticarcillin have markedly prolonged half-lives in renal failure and require major dosage adjustments in order to avoid the seizures, acidosis, and hemorrhagic diathesis associated with high plasma concentrations. Regression line B in *Figure 1* may be used as a guide to therapy. Ticarcillin has the theoretical advantage of a smaller sodium load for oliguric patients.

Two new beta-lactam antibiotics have recently become available. Mezlocillin is related chemically to penicillin G and pharmacologically to carbenicillin and ticarcillin. Mezlocillin elimination is prolonged only in severe renal failure and the appropriate dose fraction can be found by following regression line C in *Figure 1*. Moxalactam is the first representative of a new class of penicillins, the oxa-beta-lactams. Moxalactam is excreted by the kidneys, and substantial dosage adjustments must be made for renal insufficiency. Regression line B in *Figure 1* provides the appropriate modification.

Sulfonamides

Most sulfonamides are contraindicated in patients with renal failure because their elimination is dependent largely upon glomerular filtration. Cotrimoxazole (sulfamethoxazole-trimethoprim) is included in *Figure 1* because of its efficacy in the therapy of *Pneumocystis carinii* infections in immuno-compromised patients. The drug achieves therapeutic urine concentrations even in patients with marked renal insufficiency. Hemodialysis removes the drug from plasma. Serum concentrations are helpful in avoiding toxicity.

Tetracyclines

Tetracyclines are best avoided in renal insufficiency. These agents have well-known anti-anabolic effects that may aggravate azotemia. We prefer doxycycline if a tetracycline is specifically indicated. No alteration in dosage schedule is necessary in renal failure.

Vancomycin

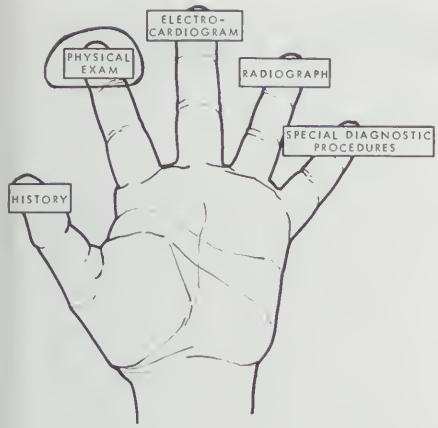
Vancomycin is eliminated primarily by the kidneys and dosage modification is provided by regression line A, *Figure 1*. The drug may cause damage to the eighth nerve and is also purported to be occasionally nephrotoxic.

Conclusion

Rational antimicrobial chemotherapy in patients with impaired renal function has been made possible by pharmacokinetic research. The prudent physician will keep in mind that any drug-dosage nomogram should be used only as a guideline in the initiation of therapy. Individual modifications may prove necessary. Drug serum concentrations should be measured at periodic intervals to assure that safe, efficacious, steady-state serum concentrations have been attained.

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THE FIVE FINGERS OF CARDIOLOGY

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A 60-YEAR-OLD gentleman remains disabled by angina pectoris despite prior attempts at coronary revascularization, and therapy with maximal doses of beta blockers and long-acting nitrates, resulting in depression in the heart rate to 40, relative hypotension, and moderate headache.

At the time of surgery, the surgeon noted that the vessels were severely and diffusely diseased. In addition to recurrent rest and exertional angina, which prevents any reasonable activity, the patient is also disabled by marked fatigue and somnolence. He has received Ritalin because of the latter complaint.

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The Five-Finger Approach to Cardiac Diagnosis was conceived by W. Proctor Harvey, M.D., of Georgetown University, and further developed by J. Willis Hurst, M.D., of Emory University into its present form: The integration of all five approaches is diagrammed into a "fist" of cardiac-diagnosis. This feature is presented as a self-assessment, emphasizing current and innovative diagnostic and therapeutic principles.

QUESTION: How might medical therapy be improved? Specifically, what agents would be provided and what is their mechanism of action?

ANSWER: Propranolol is an excellent beta adrenergic antagonist and is known to ameliorate angina in the majority of patients, as well as improve the prognosis of those who have suffered myocardial infarction. However, propranolol not infrequently produces somnolence and fatigue, presumably as a result of a central nervous system effect. Newer beta blockers are being developed and are now available which are less lipid soluable, and hence produce less central nervous effects. One of those agents is nadolol (Corgard). In this particular patient, propranolol was discontinued in favor of nadolol, and the patient's fatigue and somnolence totally resolved. Angina, however, continued since the same beta blockade was produced.

An entirely new class of agents—the calcium antagonists—offer promise in the medical management of patients with angina pectoris, both those with coronary spasm and those with fixed lesions in the coronary circulation.

The calcium antagonists block the transmembrane flux of calcium in muscle and in the AV and SA nodes. Skeletal muscle is insensitive to calcium antagonists since sufficient calcium is maintained intracellularly to effect skeletal muscle contraction. In contrast, both myocardium and smooth muscle depend upon transmembrane calcium flux, and are hence sensitive to the calcium antagonists.

Since myocardium is less dependent on extracellular calcium than smooth muscle, smooth muscle is particularly sensitive to calcium antagonists. Thus, vasodilatation resulting from inhibition of smooth muscle contraction in peripheral and coronary arteries is a more potent response to calcium antagonists than any depression in myocardial contractility; and skeletal muscle responds hardly at all. Therefore, calcium antagonists would be expected to produce coronary artery vasodilatation, peripheral arterial dilatation, a slight depression in myocardial inotropic state, and a slowing in conduction and prolongation in refractory period of the AV node.

Patients with angina might benefit from the calcium antagonists by a) diminished myocardial requirements for oxygen, which would result from a decrease in heart rate, a decrease in blood pressure, or decrease in myocardial contractile state; or b) coronary vasodilatation, thereby preventing coronary spasm or enhancing collateral flow.

The calcium antagonists will probably prove to be the agent of choice for patients with known coronary spasm—i.e., patients with Prinzmetal's variant angina. However, this same class of agent promises to facilitate remarkably the medical management of patients whose angina proves refractory to conventional therapy with beta blocking agents and nitrates. Three agents are being made available: Nifedipine, Verapamil, and Diltiazem. This patient responded to Nifedipine, 10 mg. q8h, with a total resolution in angina and consequent marked improvement in effort tolerance.

Bilateral and Simultaneous Amaurosis Fugax

A Case Report

RADE PEJIC, M.D.
Michigan City, Ind.

ABSTRACT

Transient ischemic attacks are manifested by a temporary visual loss on the side of the carotid lesion and/or a contralateral weakness or paralysis of an arm or leg. They last a few seconds, minutes or hours and the patient's signs and symptoms revert to a normal state within 24 hours of the occurrence, being almost always unilateral. The patient's signs and symptoms usually reflect a lesion at the carotid artery bifurcation or an internal carotid artery ulcerating or stenotic plaque. This case report is unique in that the patient experienced *bilateral* and *simultaneous* T.I.A.s, reflecting symptomatic carotid artery lesions in both carotid vessels. Research of the literature failed to produce similar documentation over the last 20 years.

TRANSIENT ISCHEMIC ATTACKS (T.I.A.s) are one of the most frequent and almost pathognomotic signs and symptoms of carotid artery bifurcation and/or internal carotid artery ulcerating or stenosing plaques. It is of historical interest that the first operation for extracranial carotid artery disease took place in Peking, China, at the Peking Union Medical College in 1936.[1] However, it was not until the 1950s that the basic pathophysiological concept emerged that associated carotid artery lesions with T.I.A.s.[2] An unusual feature of this case report is that the patient developed bilateral and simultaneous T.I.A.s secondary to bilateral ulcerating and stenotic internal carotid artery plaques.

Case Report

A 60-year-old white man, on the morning of Sept. 10, 1980, experienced bilateral and simultaneous blurring of his vision and light flashings lasting a few seconds, affecting the left eye more significantly than the right eye. The patient denied any facial or extremity paresthesias and had no arm or leg weakness. The blurred vision in the right eye lasted for a few seconds and occurred on three occasions. The vision in the left eye became hazy and blurred for several hours and then reverted to a normal state.

Past medical history revealed that the patient had been a two-pack-a-day smoker for the past 30 years and stopped smoking six years ago. There is no history of diabetes, cardiac, renal or pulmonary problems. On physical examination, the patient's blood pressure was 150/80, pulse 82 and regular, temperature 98° F. and respirations 20.

Examination of the head, eyes, ears, nose and throat was normal except for the funduscopic exam, which revealed an almost complete central retinal artery occlusion of the right eye with a small superior nasal portion being spared. A Hollenhorst plaque was noted just off the right optic nerve head superior temporally. The funduscopic examination of the left eye was essentially normal except that the optic nerve was pale and moderate arteriosclerotic changes in the retinal artery were noted. The remaining physical examination was essentially unremarkable. The patient had no weakness of his arms or legs and the neurologic examination was normal, all of the extracranial nerves being intact.

An aortic arch study revealed almost complete occlusion of the right internal carotid artery with faint retrograde filling of the internal carotid artery. On the left side there was approximately 85% occlusion of the left internal carotid artery. Both the right and left vertebral arteries visualized very well and had only minimal disease at the takeoff from the subclavian vessels.

The patient was prepared for surgery and underwent a right common, internal and external carotid artery endarterectomy with the hope of increasing the collateral blood supply to the brain and the central retinal artery. Five days later the patient underwent a left common, internal and external carotid artery endarterectomy. Both postoperative courses were uneventful. The patient was discharged from the hospital with excellent vision in his left eye and near total blindness in his right eye except for partial sparing of his peripheral vision.

Discussion

Amaurosis fugax is a reliable symptom of internal or common carotid artery disease[3,4] even though it may be caused by various other factors such as an osteoma,[5] external carotid artery disease,[6] ophthalmic artery stenosis,[7] and endocarditis with embolization to the ophthalmic artery. The purpose of this report is to document a unique case whereby the patient experienced bilateral and simultaneous amaurosis fugax secondary to bilateral carotid artery disease, which eventually resulted in almost complete blindness of the right eye and partial retinal loss in the left eye.

At no time during the course of the patient's illness did he experience any weakness of his extremities in spite of

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experiencing recurrent embolization to his ophthalmic and retinal arteries bilaterally. One probable explanation for this is that the patient's internal carotid artery disease was obviously progressing over several years, during which time he managed to develop excellent collateral blood flow to his brain through the basilar and posterior communicating vessels as well as from the left cerebral circulation to the right side.

Surgical intervention in this case was essential to prevent a frank stroke. Also, the patient's vision was being threatened since he already had lost significant visual function in the right eye and experienced several embolic episodes to his left eye.

Conclusion

Amaurosis fugax is probably the most common symptom of carotid artery disease, but usually it is unilateral even though the patient may have bilateral carotid artery plaques. In this particular case report *bilateral* and *simultaneous* amaurosis fugax has been documented, which is rare but certainly can occur. Such an event should be considered as a surgical emergency since it may progress to complete blindness or even paralysis.

Prompt angiographic evaluation of the carotid arterial system is mandatory. Subsequent surgical excision of the stenosing or ulcerating plaque is necessary to eliminate the source of cholesterol debris and platelet thrombi, which may embolize to the various cerebral vessels as well as to the retinal artery, resulting in retinal ischemia and possible irreversible retinal tissue loss as well as arm or leg paralysis.

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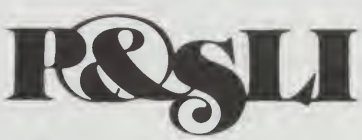


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The Use of Lumpectomy and Radiation Therapy Instead of Mastectomy for the Primary Management of Carcinoma of the Breast

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ABSTRACT

Definitive radiation therapy as local treatment for cancer of the breast is being employed much more frequently in the United States. The evolution of this program in other countries and its clinical use will be evaluated. The use of this program in a series of 25 patients at the Parkview Oncology Center since 1978 will be discussed. This program is rapidly increasing in use since the results are equal to those of surgery in local control and cure, but the cosmetic results are superior.

The primary management of cancer of the breast has always been a controversial topic. The use of lumpectomy and radiation therapy has emerged as an equal alternative to the use of mastectomy in many studies in the last several decades. Early reports from Mustaklio[1] and Pierquin[2] show excellent local control and survival results at 10 years after treatment. These results are equivalent to those obtained with surgery and have been repeated by several investigators in this country.[3,4,5]

THERE HAS BEEN a definite decline in this country over the last 10-20 years in the use of radical mastectomy, with the modified radical now being the most commonly employed surgical procedure. There also has been an increase in the proportion of women presenting with early breast cancers. These trends (along with increased public awareness of cancer and its treatment) have provided impetus to the growing use of primary radiation therapy with preservation of the breast.

When a patient presents with a lump in the breast, it is very important to discuss the diagnostic possibilities and the therapeutic alternatives. Since the results of primary radiation therapy are equal to mastectomy in local control and survival, it becomes a question of personal preference and cosmetic goals of the patient. There are many patients who feel strongly about the possibility of preserving the breast, and this program is a good treatment for that group.

If the patient is interested in the radiation therapy program and the lump is suspicious for carcinoma, it is advisable to seek consultation with a radiation oncologist at this point. Consultation prior to biopsy is very helpful for several reasons:

- The exact details of the treatment program can be discussed with the patient,
- the radiation oncologist can decide if the patient is a good candidate for the program,
- a therapeutic plan of action can be formulated by the team of family physician, surgeon, radiation oncologist, and medical oncologist, and,
- it is very helpful to the radiation oncologist in later planning the Iridium implant.

Selection of cases to be treated with this program is quite important. The size of the tumor, size of the patient's breast, and presence of palpable axillary nodes are all important selection criteria. The best results have been obtained with T_1 and T_2 tumors, although some authors have advocated treating more advanced tumors as well.[5]

If the patient has decided that she wishes to pursue this treatment and the radiation oncologist feels she is a good

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FIGURE 1: Patients have been pleased with the cosmetic results of lumpectomy and radiation therapy.

candidate, then the next step is an *excisional* biopsy of the lesion with estrogen and progesterone receptor analysis. A mammogram should always be obtained prior to biopsy to

- better visualize the lump and its extent,
- check for other abnormal areas in the breast,
- check the opposite breast, and
- help in future treatment decisions and follow-up.

The excisional biopsy should remove the gross lump and only a small rim of normal tissue to ensure good cosmetic results later. It is quite important to remove the gross disease since several series have shown an extremely low local recurrence rate in the breast when this has been done.[4]

If the excisional biopsy confirms carcinoma on the permanent section, the patient should then have a baseline metastatic work-up. We are currently obtaining a chest x-ray, bone scan, SMA-12 for liver functions, CEA and BHCG. If these studies show no evidence of metastatic disease, then the patient should be evaluated for the possibility of adjuvant chemotherapy. If she is considered a possible candidate for this, then an axillary sampling procedure should be done.

A full axillary dissection is not desirable since this may enhance the possibility of later arm and breast edema when combined with radiation. The lower axillary nodes should be sampled with removal of nodes below the axillary vein. Ideally, it is desired that about 10 nodes be obtained for later histological review. If there are positive nodes, then the patient is advised to have concomitant adjuvant chemotherapy. If the nodes are negative, then the patient proceeds with radiation therapy alone.

The radiation therapy program consists of a combination of external beam radiation therapy to the breast and draining lymphatics and a boost of radiation to the lumpectomy site. The boost of radiation can be accomplished with either interstitial implant or electron beam radiation. For the usual T_1 or T_2 N_0 M_0 lesion, we are delivering 5,000 rads of external beam radiation over 5-5½ weeks to the breast and draining lymphatics. We then utilize an interstitial Iridium implant to the primary site consisting of approximately 2,000 rads over two days.

Results

There have been a large number of series in the literature over the last several years using this approach. The results of several representative series are shown in *Table 1*.

These studies show an average local control of 96%. There are differences in each of the studies shown, but they all preserve the breast by using various combinations of conservative surgery and radiation. There have been criticisms that this technique has not been compared in a random fashion with surgery. The study by Veronesi[6] evaluated 701 patients randomized between radical mastectomy and conservative surgery with radiation. The groups were exactly comparable and there was *no difference* at seven years in actuarial

TABLE 1
CARCINOMA OF THE BREAST: DEFINITIVE RADIATION THERAPY
T_1/T_2 TUMORS

Author	Number Patients	Survival NED at 5 yrs.	Local Failure	Distant Metastasis
Pierquin[2]	320	80%	7%	19%
HARVARD[4]	84	77%	1%	21%
Syed[5]	30	93%	0%	7%
Veronesi[6]	352	84%	1%	6%
Total	786	82%	4%	13%

disease-free survival, survival, local recurrence, or distant metastasis.

Except for the Veronesi study,[6] all of the studies discussed above have not employed adjuvant chemotherapy routinely. It is anticipated that, with the addition of this program in the node positive patient, the incidence of distant metastasis will be reduced and the survival increased. There is now convincing data that adjuvant chemotherapy shows marked improvement in the survival of several subgroups of patients with breast carcinoma.[7]

Since 1978, we have treated 25 patients at the Parkview Oncology Center with this technique. The follow-up is short, but there have been no local failures as yet. The cosmetic results have been excellent and the patients have been very pleased with the final results. An example of one of our patients is shown in *Figure 1*.

Summary

The program of lumpectomy and definitive radiation therapy has been well established to be equal to mastectomy in both randomized and large retrospective studies with long follow-up. This program should be presented as an equal alternative in properly selected patients who desire to have their breast preserved. In patients entering this program, close cooperation must be established from the outset between family physician, surgeon, and radiation oncologist to obtain the goals of local control, good cosmetic result, and freedom from distant disease.

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CME QUIZ

Adult Osteomyelitis

CONTINUED FROM PAGES 387-390

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. The most significant clinical difference between adult and childhood osteomyelitis is:
   a) The higher percentage of staph aureus infections in children.
   b) The increased destruction and sequestration of bone at diagnosis in adult patients.
   c) The poorer host defense mechanism in children.
   d) The increased concentration of most antibiotic families attainable in adult extracellular fluid.
2. Osteomyelitis commonly is a recurrent chronic infection because:
   a) A blood-bone barrier limits access of antibiotics.
   b) The piezoelectric charges generated in bone by weight bearing inhibit leukocyte phagocytosis.
   c) Devascularized bone (sequestra) are routinely created and protectively harbor bacteria.
   d) Involucrum prevents revascularization of sequestra.
3. Initial management of chronic adult osteomyelitis should include:
   a) An initial 3 weeks course of an oral broad spectrum antibiotic followed by soft tissue coverage.
   b) Intensive surgical debridement of all affected bone until all edges bleed copiously, wound closure, protective casting, and 6 months of oral cephalosporins.
   c) Amputation one joint above the infection focus.
   d) Radiologic assessment of the extent of sequestra followed by adequate surgical debridement of all affected bone and a deep bone culture.
4. Revascularization and resorption of sequestra:
   a) Will only occur if antibiotics are present.
   b) Cannot occur if a nonunion exists.
   c) Is considerably inhibited by rigid immobilization of the bone.
   d) Is a slow process in the adult often complicated by reoccurrence of infection.
5. Reconstructive surgery for osteomyelitis may be initiated when:
   a) The patient is afebrile.
   b) When the infection is controlled and granulation tissue covers all wound edges.
   c) When all bone is covered by skin.
   d) After a 6 week course of IV antibiotics.
6. Infection eradication, bone healing, and bone remodeling are all dependent on:
   a) The appropriate antibiotic in appropriate dosage.
   b) Immobilization of the whole extremity.
   c) Adequate skin coverage.
   d) Adequate osseous blood supply.
7. Management of adult osteomyelitis is complete when:
   a) No evidence of infection exists, the bone has regained normal structure and strength, and the periosseous soft tissue is adequately reconstituted.
   b) No evidence of infection exists after 6 weeks of IV antibiotics.
   c) The bone is healed and allows weight bearing and infection is controlled.
   d) The sedimentation rate is normal.
8. When a post-operative osteomyelitis occurs after internal fixation of a fracture with a metal plate:
   a) Aspirate the wound and treat with appropriate antibiotics for 6 weeks.
   b) Amputation is always the first choice.
   c) Perform an intensive surgical debridement, leave the wound open or close over irrigating tubes, treat with antibiotics IV for 6 weeks, and leave the plate if it provides rigid stabilization.
   d) Debride the wound, remove the plate even if it provides stabilization, leave the wound open, treat with antibiotics, and consider bone healing when the infection is cleared.

CONTINUED ON PAGE 423

April CME Quiz Answers

Following are the answers to the CME quiz that appeared in the April 1982 issue of THE JOURNAL: "Tay-Sachs Carrier Detection," by Rebecca S. Wappner, M.D.

1. d	6 c
2. b	7. d
3. b	8. b
4. d	9. b
5. a	10. d

Answers sheet for Quiz: (Adult Osteomyelitis . . .)

1. a b c d	6. a b c d
2. a b c d	7. a b c d
3. a b c d	8. a b c d
4. a b c d	9. a b c d
5. a b c d	10. a b c d

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing lable)

Signature

To be eligible for this month's quiz, send your completed, signed application before July 10, 1982 to the address appearing at the top of this page.

WILLIAM M. DUGAN, JR., M.D.
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There are now available six new Professional Education publications for physicians and other interested health care professionals through the ACS Division Office. These publications are:

1. **Proceedings of Conference on "Early Cervical Neoplasia", Code #0394:** Proceedings of a workshop conference held at the Don Cesar Hotel in St. Petersburg Beach, Florida, in March 1981. This was a closed three-day meeting in which approximately 40 scientists participated. A limited number of copies are available upon request.

2. **Early Detection of Primary Cutaneous Malignant Melanoma, Code #3313:** The article, originally published in the *New England Journal of Medicine,* describes the early clinical signs of malignant melanoma in order to facilitate early detection—when invasion is limited and there is greater chance of cure. Eighteen color photographs of various melanomas are included and make up the bulk of the text.

3. **Proceedings of the American Cancer Society Third National Conference on Human Values and Cancer, Code #4567:** The Conference was held April 23-25, 1981, in Washington, D.C. The proceedings include presentations delivered by physicians, patients, parents, volunteers, nurses, clergy, social workers, cancer center specialists, and others engaged in effective and thoughtful patient care. The psychological, emotional and social needs of cancer patients and their families are discussed as well as the methods and techniques to assist those affected by cancer. These proceedings are a valuable update to the previous publications of the first and second Human Values Conferences.

4. **Colonoscopy and Colon Cancer: Current Clinical Practice, Code #3356:** Over the past decade, colonoscopy—its techniques and the instruments available—has been greatly refined. More and more physicians have been trained in this technique, so that today colonoscopy is widely available.

Dr. Overholt discusses under what circumstances colon cancer should be suspected and when colonscopy should be performed. He concludes that, "As a result of colonoscopy and colonoscopic polypectomy, we can reasonably hope for and expect improved survival for colorectal cancer patients."

5. **Ca Ten-Year Index, Code #3388:** A stand-alone, subject and author index of the medical journal *Ca-A Cancer Journal for Clinicians,* for the years 1971 through 1980, volumes 21 through 30.

6. **Advanced Breast Cancer: Additive Hormonal Therapy, Code #3304:** In the 1960s the use of additive hormonal therapy for advanced breast cancer declined, largely because of hopes that multidrug combination chemotherapy might cure those patients with advanced disease. These initial hopes have not been realized, and today investigators are turning increasingly to therapies that combine hormonal and nonhormonal agents.

Dr. Kaufman, of Memorial Sloan-Kettering Cancer Center, reviews the additive hormonal drugs most commonly used today: estrogens, androgens, progestins, testololactone, and corticosteroids. Although he makes no claim for the curative potential of these agents, he points to the prolonged survival hormones produced in a number of patients with recurrent disease, along with the relative lack of severe side effects. Since cure is not possible at this time, Dr. Kaufman urges the continued use of hormones in managing advanced breast cancer.

When ordering these publications you should specify the full title and code number and mail to:

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American Cancer Society National Conference: The Primary Care Physician and Cancer, June 24-26, 1982. Hyatt Regency Washington, D.C.

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The afternoon sessions are structured to provide an opportunity for audience participation in an extended discussion and observation period. Questions from the audience will be invited.

Attendance is open to members of the medical and health related fields.

This continuing medical education activity meets the criteria for 17.5 hours in Category 1 of the Physicians Recognition Award of the American Medical Association, for 17.5 prescribed hours by the American Academy of Family Physicians, and for 17.5 credit hours in Category 2D of the American Osteopathic Association.

Attendance is open to members and students of the medical and health-related professions. There is no registration fee, but advanced registration is requested.

Registration forms may be obtained from your local American Cancer Society or from: American Cancer Society National Conference, The Primary Care Physician and Cancer, 777 Third Avenue, New York, New York 10017.

These reports bring you information on what the AMA is doing, on behalf of the profession and the public, to influence decisions that will affect health care in the next decade and beyond.

health issues of the 80's

health care coalitions

In a period when the economy in general is creating growing national concerns, the rising costs of medical care are a focus of attention for the medical profession and for many other groups — business, insurers, hospitals, labor, consumers, and government. Our country is reviewing and reassessing private and public policies on costs, planning, and delivery of health care.

It is a time when all must share in the responsibility for finding solutions. And these solutions must be developed locally to deal with unique local problems. A relatively new type of group — the health care coalition — is coming to the fore as a promising voluntary organization to deal with health care problems on a local, regional, or state basis.

At the national level, the AMA has joined with the American Hospital Association, the Blue Cross and Blue Shield Associations, the Business Roundtable, the Health Insurance Association of America, and the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) to endorse the concept of voluntary coalitions. Members of the national groups have agreed also to encourage members and local affiliates to participate together in such coalitions.

For the AMA, supporting the development of health care coalitions is a natural extension of its activities over the past three years in developing contacts at the national level with business and industry groups. The AMA has also encouraged state and local medical groups to establish dialogues with businesses and industries in their areas to discuss common concerns about health care delivery.

Within the federation of medicine, both state associations and county societies have pursued the initiation of medicine-business coalitions. About 46 medicine-business coalitions are in operation or in development stages. Others are being discussed. In many states where state associations have not established coalitions, they have initiated meetings with business, and frequently they have included other providers. Most state medical associations see their roles as catalysts for county-level coalitions, and many have sponsored programs and prepared technical assistance materials for county groups.

The AMA believes that these coalitions have the promise of being **the most effective mechanisms** for containing health care costs. Even though a local coalition of providers, insurers, business, and labor may not necessarily develop new cost-effectiveness ideas, it can create a better base of support for implementation of effective programs. For example, the medical community has long supported such policies as the elimination of nonemergency, weekend hospital admissions; increased preadmission testing; and greater use of outpatient services, such as ambulatory surgical centers, when medically appropriate. Endorsement of these policies and cooperative action by employers who furnish health insurance and by labor unions who bargain for benefits can make implementation of these policies a reality.

The AMA believes it is imperative that health care coalitions have physician participation so that primary emphasis is given to **quality** and **availability** of medical care and **access** to it, as well as to cost effectiveness and cost containment.

To help medical societies form coalitions or participate effectively in existing ones, the AMA has resource materials and other aid available. We in organized medicine must participate. **Now** is the time for medical societies to enlarge their leadership role and show the way.

Such leadership requires your support. The larger our membership (now 232,000) the greater our influence, and our strength as the only representative for all of medicine.

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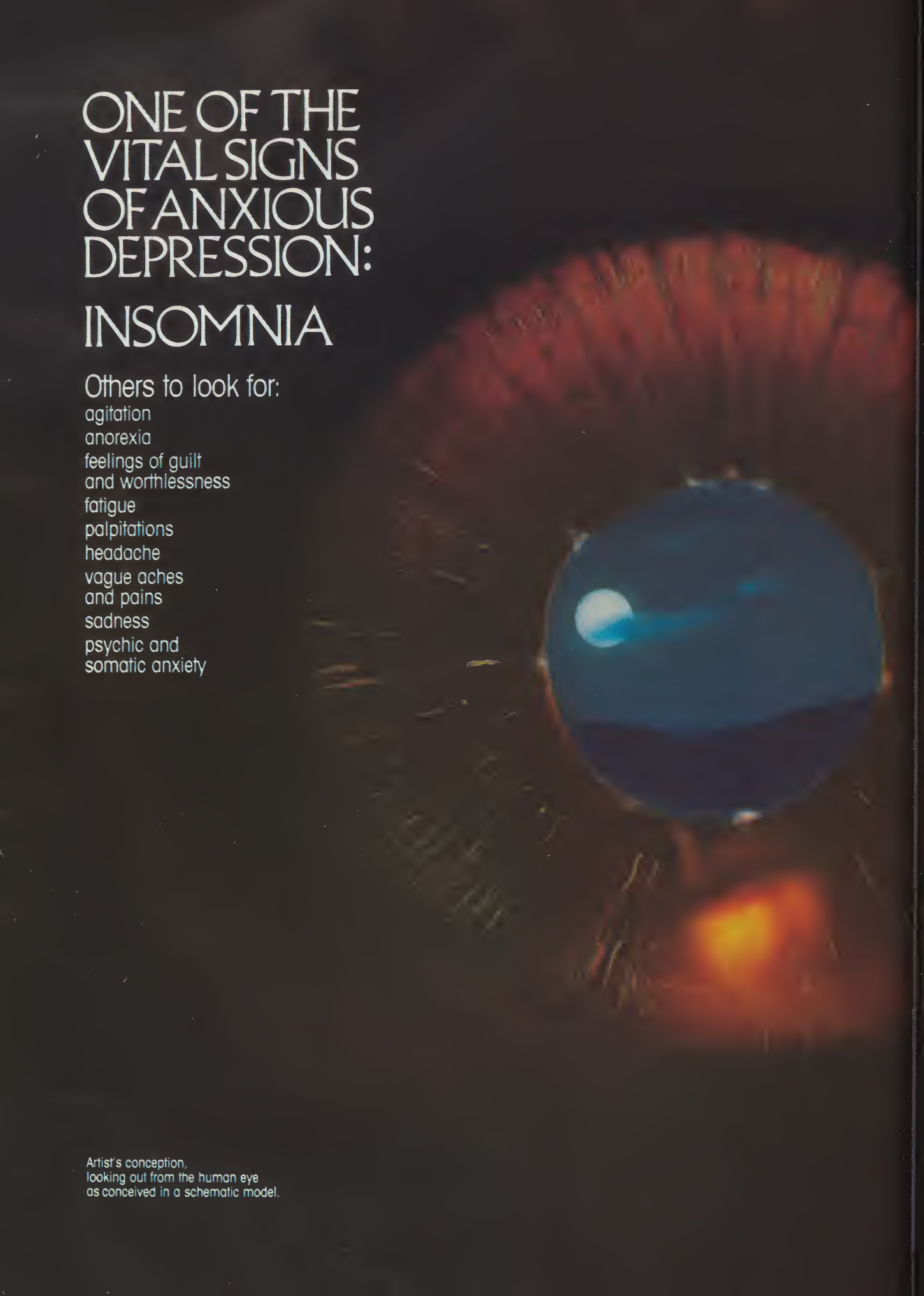
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Many patients respond readily to a single bedtime dose of Limbitrol, a convenient schedule that may enhance compliance and helps relieve the insomnia associated with anxious depression. Limbitrol also offers a choice of other regimens: t.i.d., or a divided dose with the larger portion h.s. In all cases, caution patients about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as driving or operating machinery.

in moderate depression and anxiety

Limbitrol® IV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
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Specific therapy with h.s. dosage convenience

Please see summary of complete product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant
Before prescribing, pleose consult complete product infarmatian, o summary of which fallaws:
Indicatians: Relief af maderate ta severe depressian assaciated with maderate ta severe anxiety
Cantraindicatians: Knawn hypersensitivity ta benzodiazepines ar tricyclic antidepressants Da nat use with manaamine axidase (MAO) inhibitars ar within 14 days following discantinuatian at MAO inhibitars since hyperpyretic crises, severe canvulsions and deaths have accurred with cancamitant use, then initiate cautiausly, gradually increasing dasage until aptimal respanse is achieved Cantraindicated during acute recavery phase fallawing myocardial infarctian
Warnings: Use with great care in patients with histary af urinary retentian or angle-clasure glaucama Severe canstipatian may accur in patients taking tricyclic antidepressants and antichalinergic-type drugs Clasely supervise cardiavascular patients (Arrhythmias, sinus tachycardia and pralangatian at canductian time reparted with use at tricyclic antidepressants, especially high dases Myocardial infarctian and strake reparted with use at this class at drugs) Caution patients abaut possible cambined effects with alcohol and other CNS depressants and against hazardaus occupatians requiring complete mental alertness (e g , aperating machinery, driving)

***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients ta discuss therapy if they intend to or do become pregnant.**

Since physical and psychalagical dependence ta chlardiazepaxide have been reported rarely, use cautian in administering Limbitral to addiction-prone individuals ar those wha might increase dasage, withdrawal symptams fallawing discantinuatian at either component alane have been reported (nauseo, headache and maloise far amitriptyline, symptams [including canvulsians] similar ta thase at barbiturate withdrawal far chlardiazepaxide)
Precautions: Use with caution in patients with a histary af seizures, in hyperthyroid patients ar those on thyroid medicatian, and in patients with impaired renal ar hepatic functian. Because at the possibility af suicide in depressed patients, da nat permit easy access ta large quantities in these patients. Periadic liver functian tests and bladder caunts are recammended during prolonged treatment. Amitriptyline campanent may black actian of guanethidine ar similar antihypertensives. Cancamitant use with other psychatropic drugs has nat been evaluated: sedative effects may be additive Discantinue several days before surgery Limit cancamitant administratian af ECT ta essential treatment See Warnings far precautians about pregnancy Limbitral should nat be taken during the nursing period Nat recammended in children under 12 In the elderly and debilitated, limit ta smallest effective dasage ta preclude ataxia, aversedation, confusion ar anticholinergic effects
Adverse Reactions: Mast frequently reported are those associated with either campanent alane: drawsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactians include vivid dreams, impatence, tremar, canfusian and nasal congestion. Many depressive symptams including anarexia, fatigue, weakness, restlessness and lethargy have been reparted as side effects at bath Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely
The fallawing list includes adverse reactians not reported with Limbitrol but requiring consideratian because they have been reparted with one or both campanents ar closely related drugs
Cardiavascular: Hypatensian, hypertensian, tachycardia, palpitatians, myocardial infarctian, arrhythmias, heart black, strake.
Psychiatric: Euphoria, apprehension, paar cancentratian, delusians, hallucinatians, hypamania and increased ar decreased libida.
Neurologic: Incaardinatian, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptams, syncope, changes in EEG patterns.
Anticholinergic: Disturbance af accammadatian, paralytic ileus, urinary retentian, dilatatian af urinary tract.
Allergic: Skin rash, urticaria, photasensitizatian, edema at face and tangue, pruritus
Hematologic: Bone marrow depression including agranulocytasis, easinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anarexia, stomatitis, peculiar taste, diarrhea, black tongue
Endocrine: Testicular swelling and gynecamastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevatian and lawering at bload sugar levels.
Other: Headache, weight gain ar lass, increased perspiratian, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling
Overdosage: Immediately hospitalize patient suspected of having taken an averdase. Treatment is symptomatic and supportive IV administratian af 1 to 3 mg physastigmine salicylate has been reported to reverse the symptams of amitriptyline poisoning See complete product informatian for manifestatian and treatment
Dosage: Individualize according to symptom severity and patient response Reduce ta smallest effective dasage when satisfactory response is obtained Larger partian af daily dose may be taken at bedtime Single *h.s.* dose may suffice far same patients. Lawer dasages are recammended far the elderly Limbitral 10-25, initial dasage af three ta faur tablets daily in divided dases, increased ta six tablets ar decreased ta twa tablets daily as required. Limbitral 5-12.5, initial dasage at three ta faur tablets daily in divided dases, far patients wha da nat talerate higher dases
How Supplied: White, film-coated tablets, each containing 10 mg chlardiazepaxide and 25 mg amitriptyline (as the hydrachlaride salt) and blue, film-coated tablets, each containing 5 mg chlardiazepaxide and 12.5 mg amitriptyline (as the hydrachlaride salt)—bottles at 100 and 500; Tel-E-Dase® packages at 100, available in trays at 4 reverse-numbered boxes at 25, and in boxes containing 10 strips at 10, Prescriptian Paks at 50

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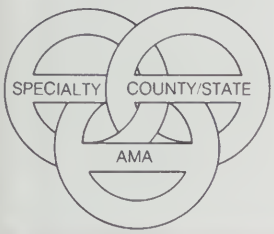
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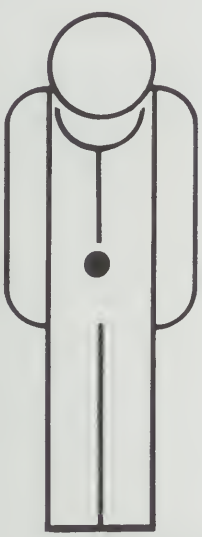
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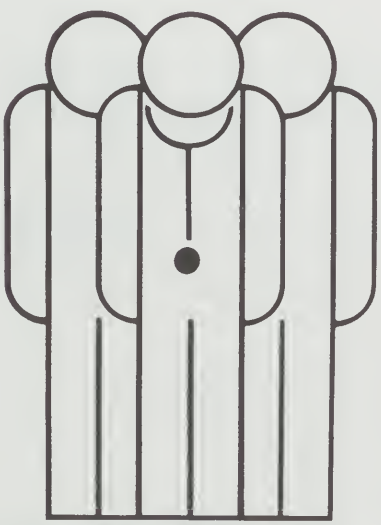
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RONALD G. BLANKENBAKER, M.D.
State Health Commissioner

New information from
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Indiana State Board of Health
1330 W. Michigan St.,
Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

International Immunization Requirements: Smallpox, Cholera, Polio, Plague, Yellow Fever, Malaria, Measles

Requirements and recommendations for immunization of international travelers change frequently; however, some general guidelines based on the most current information available from the Centers for Disease Control (Atlanta) may help individuals who plan to travel abroad and the medical community deal with frequently encountered situations. More specific information (updated weekly) may be obtained upon request from Charles L. Barrett, M.D., director of the Communicable Disease Control Division, Indiana State Board of Health, 317/633-8414.

There are now no medical reasons for smallpox vaccination for international travel. The World Health Organization has recommended that countries no longer require an International Certificate of Vaccination against smallpox for travelers. Only two countries, Chad and Democratic Kampuchea, still require such a certificate; instead of vaccination, travelers to those countries should be provided a written statement, signed by their physician, that vaccination is contraindicated for health reasons.

Cholera vaccination is not routinely recommended unless the countries visited are among the very few requiring it for entry. A single dose is sufficient to satisfy International Health Regulations. Persons following the usual tourist itinerary and who use standard accommodations in countries affected by cholera are at virtually no risk of infection since cholera is acquired primarily from contaminated food and water. Currently available cholera vaccines are of limited effectiveness; the traveler's best protection is to avoid food and water that might be contaminated.

Vaccination against plague is not required by any country. There is no need to vaccinate persons other than those at particularly high risk of exposure (e.g., persons who will reside in plague-enzootic rural areas where avoidance of rodents and fleas is impossible). Vaccination is not indicated for most travelers to countries reporting cases, particularly if their travel is limited to urban areas with modern hotel accommodations.

Vaccination for yellow fever is recommended for travel to infected areas (usually parts of Africa and South America) and for travel outside the urban areas of countries in the "yellow fever endemic zones." Current information on yellow fever infected areas (as well as information on plague and cholera infected areas) is received weekly at the Indiana State Board of Health.

Yellow fever vaccine must be administered at a designated Yellow Fever Vaccination Center. Official centers in Indiana are located at the Indiana University Medical Center, Indianapolis (317/264-7800), and the following health departments: Gary City, Lake County, Elkhart County, Vanderburgh County, Allen County, Vigo County, and St. Joseph County. The Louisville-Jefferson County Health Department, the Cincinnati Health Department, the Montgomery County (Ohio) Health Department, and Miami University Student Health Services (Ohio) are also official centers.

All travelers, regardless of age, to areas of risk for malaria transmission should take prophylactic medication. Chloroquine phosphate should be taken once weekly one to two weeks prior to, during, and for six weeks after exposure. An effective drug for suppression of chloroquine resistant *P. falciparum* is pyrimethamine-sulfadoxine which has recently been marketed in the U.S. under the trade name of Fansidar. Travelers to areas where resistant strains are widespread should take this medication *in addition* to chloroquine because chloroquine is the preferred drug for suppression of *P. vivax* infections which also occur in most of these areas.

Information on areas of malaria risk and areas of chloroquine resistance can be obtained from the Indiana State Board of Health Communicable Disease Control Division at Indianapolis. There is no malaria risk in Canada, Europe, Australia, and Japan at this time.

The immunization status of travelers needs to be reviewed for the vaccines routinely administered in the United States. As measles incidence decreases dramatically in this country, an increasing proportion of cases can be directly traced to importations. All travelers are strongly urged to be immune to measles. Persons can be considered immune only if they have documentation of physican-diagnosed measles, laboratory evidence of measles immunity, or adequate immunization with live measles vaccine when 12 or more months of age.

It is generally recommended that immunized persons traveling to developing countries be given one booster dose of polio vaccine before traveling. For unvaccinated or partially vaccinated travelers, completion of a series is recommended; Trivalent oral polio vaccine is preferred for those under 18 years, but unvaccinated adults and persons with compromised immunity should receive injectable polio vaccine.

Travelers can be considered immune to rubella only if they have documentation of previous vaccination or laboratory evidence of immunity.

Primary immunization for tetanus and diphtheria with a booster every 10 years is a universal recommendation regardless of age.

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FUTURE FILE

CME/Sports Getaway

The AMA 1982 CME/Golf Digest-Tennis Program will be held Oct. 10-16 at the Doral Country Club and Hotel in Miami. The reservations deadline is Sept. 1.

Five days of sports instruction and tournament play, AMA video clinics on alcoholism and hypertension, and a four-hour seminar on retirement planning are highlights of the week. The video clinic courses are accredited for eight hours of Category 1 credit.

Call Elaine M. Tejcek at (312) 751-6057 for details, including costs of the various programs.

Seriously Ill Child

"Care of the Seriously Ill Child" will be the subject of the 10th Annual Fall Pediatric Surgery-Pediatrics Symposium sponsored by the Indiana University School of Medicine. It will be held at the Indianapolis Atkinson Hotel, Sept. 29-30.

Contact Jay L. Grosfeld, M.D., Surgeon-in-Chief, Riley Hospital, 1100 W. Michigan St., Indianapolis 46223, (317) 264-4681, or Joni Downs at (317) 264-8353.

Common Cancer Problems

"Common Cancer Problems for Primary Physicians" will be presented Saturday, Sept. 18, at the Parkview Oncology Center, Fort Wayne.

The meeting has been accredited for 5½ AMA Category 1 hours and 5½ AAFP Category 1 hours. The registration fee is $25 for physicians and $10 for residents and other interested medical personnel.

Contact Robert Rankin, Administrative Director, Parkview Oncology Center, 2500 E. State Blvd., Fort Wayne, Ind. 46805. Tel: (219) 482-9681.

Cancer Congress

The 13th International Cancer Congress will meet in Seattle, Washington Sept. 8-15, 1982. For program and registration info write Congress Operations Office, Fourth and Blanchard Bldg., Suite 1800, Seattle, Wash. 98121.

Diagnostic Imaging

"Diagnostic Imaging Postgraduate Course" will be held July 26-30 at Atlantic Beach, N.C., by Duke University Medical Center. Fee is $375 ($200 for trainees if accompanied by a letter from department chairman). The course is designed for radiologists but is open to other physicians. Category 1—5 hours. Write Donald R. Kirks, M.D., Box 3834, Duke University Medical Center, Durham, N.C. 27710.

Clinical Neurology

The fifth annual Symposium on Contemporary Clinical Neurology sponsored by Vanderbilt University will be held July 27-31 at the Palmetto Dunes Hyatt Resort, Hilton Head Island. For info write to Joan Sullivan, Department of Neurology, Vanderbilt University School of Medicine, Nashville, Tenn. 37212.

Internal Medicine

"An Intensive Review of Internal Medicine" will be conducted Aug. 16-21 by Jefferson Medical College and the University of Delaware on the Newark Campus of the University of Delaware.

The course carries 55 hours of Category 1 AMA credit and is designed for contemporary review and for those physicians who contemplate writing the American Board of Internal Medicine Certifying Examination.

Write Sylvia Brocka, 2800 Pennsylvania Ave., Wilmington, Del. 19806 or call (302) 738-8151.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Breast Cancer

"Breast Cancer" will be the subject of a CME conference at Bethesda Hospital, Cincinnati, Nov. 5-6. The course will allow 12 hours of Category 1 credit. It is oriented to primary care physicians, oncologists and radiation therapists. Write to Thomas J. O'Connor, 619 Oak St., Cincinnati 45206.

Kidney Disease Update

"Kidney Disease Update" will be the subject of a CME conference at Bethesda Hospital, Cincinnati, Oct. 29-30. The course carries 10 hours of Category 1 credit, and is oriented to primary care physicians. Write to Thomas J. O'Connor, 619 Oak St., Cincinnati 45206.

Breast Cancer Conference

"The Cincinnati Conference on Cancer—Breast Cancer" will be conducted Nov. 5-6 at the Westin Hotel, at Fountain Square, Cincinnati. Program is designed for oncologists, primary care physicians and radiation therapists. The sponsor is Bethesda Hospital & Deaconess Association. The registration fee is $145, with 50% discount for residents in training. Address Thomas J. O'Connor, 619 Oak St., Cincinnati 45206.

Diagnostic Imaging

"International Symposium of Diagnostic Imaging" will be presented by Duke University at the Southampton Princess Hotel, Hamilton, Bermuda, Oct. 4-8. Before July 1, the registration fee will be $400; after that date, the fee will be $475.

The symposium, approved for 25 hours of Category 1 credit, is designed for radiologists but is open to other physicians, whether they are in training or practice. Topics will cover adult and pediatric radiology, including ultrasound, nuclear medicine, computed tomography, interventional techniques, and newer imaging modalities.

Contact Donald R. Kirks, M.D., Duke University Medical Center, Durham, N.C. 27710.



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Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

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BOOK REVIEWS

Something Hidden: A Biography of Wilder Penfield

Jefferson Lewis. Copyright 1981, Doubleday & Company, Inc., New York. 311 pages, hardcover, $17.95.

Dr. Wilder Penfield (1891-1976) was a determined Victorian moralist by nature who happened to become the preeminent neurosurgeon of his generation. His moralism was forced by a strictly Protestant mother, who possibly overcompensated for the father's irresponsibility, during his early years in Spokane, Washington and Hudson, Wisconsin.

He ultimately became a renowned neurosurgeon quite unintentionally after inspiring early study under Sherrington and Osler at Oxford and Cushing at Johns Hopkins. This excellent biography by his journalist grandson is more than an account of one outstanding person's achievements. It is a record of evolving conflicts between Penfield's religion, unchanged from youth, and his science, which required him to ask fundamental questions about the human brain.

At the Montreal Neurological Institute, which Dr. Penfield established in 1934 as the world's first multidisciplinary center for the study of neuroscience, he was occupied for more than a decade with his surgical treatment of epilepsy. He applied electroencephalography in the operating room for the first time to help localize seizure foci preoperatively. He explored in detail the differentiation of the cerebral cortex using electrical stimuli. He followed with keen interest the work of the neurochemists, neurophysiologists and neuroanatomists at the Institute.

These experiences and his observations of the natural history of neurologic illnesses and their response to his treatments led Penfield to consider the mechanism and meaning of the human soul, which he reverently believed existed. He took up the search for the soul inside the human skull but, one suspects, never really wanted to find it there, refusing the reductionist notion that the soul was, ultimately, a biochemical effect like digestion or respiration. Many of his later years were spent depressed over his inability to reconcile his religious beliefs with his knowledge of the brain.

Dr. Penfield was a man whose scientific achievements, while extraordinary, may have been limited by his wide interests and tendency to take up almost any challenge. He completed historical novels about Abraham and about Hippocrates and a biography of Alan Gregg, his contemporary source of power at the Rockefeller Foundation who helped finance the Montreal Neurological Institute. He traveled extensively as a good-will ambassador for his adopted Canada and volunteered his efforts during years of war. He spent years leading a government-sponsored family sociology project and was endlessly devoted to his own family. He seemed always to be preparing the next speech. He approached every task with the same conservative certainty, producing fervent admiration by some and equally fervent dislike by others.

Dr. Penfield was a curious anomaly of a man who achieved by persistence rather than by sheer brilliance. As an adolescent it took him weeks to teach himself to swallow without moving his Adam's apple! He was elected a Rhodes Scholar, but only on his third try. He rarely was first in his classes. His writing never satisifed him. He did not succeed in every endeavor and accepted small defeats when they came, but only after he had given his best. This biography is a story of one remarkable man's self-actualization. It will provide inspiring reading to all who seek to improve themselves.

Eric L. Dyer, M.D.
Bedford
Internal Medicine

Dell Trade Paperbacks has released *The Sports Doctor's Fitness Book for Women.* It was written by the late Dr. John L. Marshall, famous doctor of many famous athletes and numerous New York teams. Heather Barbash was co-author. It is written for women—those in amateur and professional sports and those who engage in regular physical fitness exercises. It is a complete guide to an area of fitness that has been ignored in the past. $7.95.

Current Medical Diagnosis & Treatment

Edited by Marcus A. Krupp, M.D., and Milton J. Chatton, M.D. Copyright 1982, Lange Medical Publications, Los Altos, Calif. 1,113 pages, softcover, $23.

The avowed mission of this book is to provide a "useful desk reference" on current diagnosis and treatment. The authors do not intend it to be used as a textbook of medicine.

The number of contributing authors, including two editors, is 37, all from the West Coast or nearby areas.

Topics are dealt with briefly but clearly. Recent bibliographic references are appended to each section to facilitate the acquisition of additional information. The handbook does not contain illustrations, although it does have numerous useful tables. The lack of illustrations is understandable in view of the comprehensive coverage of the topic of general medicine.

A useful appendix provides much ancillary information. The two pages on CPR incorporate four line drawings.

The index is comprehensive and quite adequate. One of the most valuable characteristics of the volume lies in the fact that it is revised annually. The book is well bound in an attractive, flexible cover.

W. D. Snively, Jr., M.D.
Evansville
Internal Medicine

Doubleday has released *Anatomy of an Epidemic* by Max Morgan-Witts and Gordon Thomas, authors of *The Day the Bubble Burst.* The book traces the sudden virulence of Legionnaire's Disease from the mystery of its outbreak to its isolation and diagnosis. $16.95.

Doubleday has published and the National Cancer Foundation has endorsed *A Land Beyond Tears,* a new book written by Barry Neil Kaufman and Suzi Lyte Kaufman to provide a source of emotional support for relatives and friends of patients with incurable disease. $13.95.

Sports Medicine

Otto Appenzeller and Ruth Atkinson. Copyright 1981, Urban & Schwarzenberg, Baltimore. 395 pages, $39.

Dr. Appenzeller is a Professor of Neurology and Medicine at the University of New Mexico School of Medicine; Dr. Atkinson is Associate Professor of Neurology and Pediatrics at the same institution.

This book has been written to cover all aspects of Sports Medicine, including the nervous system, nutritional aspects of sports, hormones and electrolyte balance, cardiac and respiratory physiology and their relationships to exercise and altitude, and a section on sports injury.

A brief history of Sports Medicine beginning with the Greek Olympic games is given. Also presented are several interesting historical aspects on child labor, the health of military recruits from 18th century, infectious diseases related to sports, athletic records, and the increasing interest among women in Sports Medicine.

This book has been especially interesting to me because it brings together scattered bits of knowledge that generally have not been synthesized for the practicing physician. I think the authors are to be commended on an opus that should be in the library of everyone interested in Sports Medicine. It debunks many of the myths about training and nutrition, and it helps us understand many of the phenomena involved in scientific physiologic medicine.

I trust that physicians interested in contact sports, jogging or swimming—or any other sports endeavors—will find this a most worthwhile book.

J. E. Arata, M.D.
Fort Wayne
General Surgery

Perforating Veins

Edited by Robert May, Hugo Partsch, Jochen Staubesand. Copyright 1981, Urban & Schwarzenberg, Munich. 252 pages, 145 illustrations, $32.50.

A comprehensive, if somewhat internally inconsistent, literature has arisen about perforating veins of the lower extremities. Their number, location, course, and other particulars—including diagnosis and therapy—are here presented in minute (and, at times, plodding) detail. Anatomical nomenclature is brought in line with clinical requirements. At the micro level, careful studies of the venae nervorum clarify why pain occurs when venous drainage is disturbed. Simultaneous pressure and flow recordings provide a closer insight into the fascinating macro-circulation of complex venous dysfunction.

The role perforators play in the post-thrombotic syndrome and in primary hereditary varicose veins is controversial. When looking for the "truth," these authors favor specific hemodynamic analysis of each patient's problem, rather than using some generalizing hypothesis that rests on prior subjective impressions. Methods that supply objective data about perforating veins—like thermography, Doppler ultrasound, phlebography, foot volumetry, etc.—are thus described.

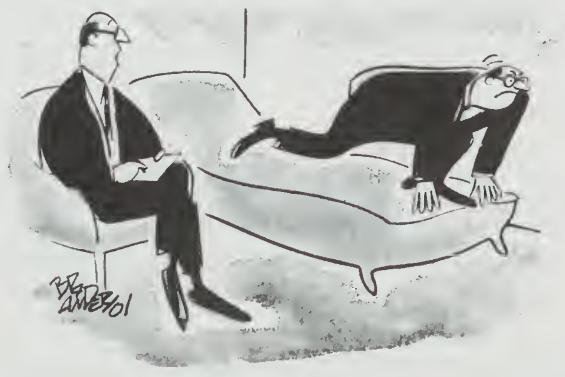
Several nuances of therapeutic techniques, starting with Linton's classic method and including discission, compression, and sclerotherapy, are presented. Unfortunately, the sheer variety of therapies discussed may disorient the reader as to the proper place and time for each. Despite a tendency toward intellectual petit point devoid of pattern, this book provides a useful service by collecting scattered information and by identifying some unsolved problems.

Alan T. Marty, M.D.
Evansville
Cardio-Vascular Surgery

Dell Books has released *O.R.: The True Story of a Nurse Anesthetist.* It is written by a nurse anesthetist, in a big city hospital, who writes under the pseudonym of Barrie Evans. She discusses methods of inducing and maintaining anesthesia while monitoring the vital statistics of the patient. She also deals with the interpersonal relationships of the operating room, the camaraderie and cooperation that is required together with coordination. $2.95.

Van Nostrand Reinhold announces *Life Stress: Volume III of a Companion to The Life Sciences,* edited by Stacey B. Day, M.D. It is a collection of over 50 articles, each one focusing on a specific new aspect of stress and stress-related diseases. It includes a special section on life stress—its influence on children, women and families. The section investigates child abuse and stress, child advocacy, contemporary working women, violence against women, geriatric stress, and more. 432 pages, $34.

The Lawyers Co-operative Publishing Company has a new publication, *Medico-Legal Implications of Death and Dying,* by David W. Meyers. It treats such topics as legal definition of death, brain death statutes, informed and implied consent to medical procedures, standard of care owed to dying patients, "euthanasia" and criminal liability, orders not to resuscitate dying patients, etc. One hardbound volume. To be kept current through annual pocket-part supplementation and new or revised volumes, as required. $65.



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RONALD R. DICKINSON
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LAST MONTH, we attempted to stimulate your mind to accept the challenge of becoming a successful business and financial person in addition to being a dedicated physician.

This month, we would like to challenge your attitude and thinking about where and how you want to practice medicine. During the past decade, there has been a strong trend for doctors to join a group, go to work for a hospital, or contract with some facility or institution. The concern is whether this trend is creating a damaging effect on the future of the physician.

This concern is based on what is happening to the health care industry in general. At the national level, several bills are directed toward clamping down on doctors and hospitals; here in Indiana, Blue Cross/Blue Shield payment regulations have created turmoil for physicians. Partly to blame for attacks on the health care system is physician apathy in responding to various public and government complaints.

Unfortunately, this situation has developed, to some extent, because many physicians have business managers, hospital administrators, advisors, and the like to cope with complaints, business problems, and the pressures on the business side of practicing medicine.

The lack of education and exposure to outside pressures, coupled with the tremendous pressures of practicing quality health care, seemingly has allowed current trends to become more easily accepted as the road of least resistance.

The relief of not going deeper into debt, the assurance of a nice paycheck for practicing medicine, the knowledge that needed equipment and support are already available, and the fact that all pressures from the business side of a practice are set-up the day Residency is completed, make for less concern about where the health care industry is going.

Do not be confused by the point we are making. There are many needs and arguments favoring the hospital physician, the group practice, and all the other controlled-environment methods of practicing medicine. However, history has shown that one of the true leaders of the free enterprise system is the young physician who opens a private practice where he is needed, and then dedicates his life to touching people's lives in other than medical ways. When you decided to become a doctor, did you allow the pressures of that goal to block out some of your drive to achieve other important goals? If so, today is not too late to define and rekindle your objectives as a doctor, as well as to choose your way of life as a person.

Whether you are a junior or senior in medical school or a physician who has been in practice for several years, you should approach the subject of objectives in the same manner. In consulting with physicians and their spouses, we use a simple analogy of how much time most people spend planning a two-week vacation, and yet never give that much time and effort in planning their futures. A trip of any distance in unfamiliar territory calls for a roadmap or directional assistance. Your life's objectives call for a roadmap, too!

The first ingredient in defining personal objectives on how and where you want to practice is, "Take time to think about your objectives and then write them down."

To assist your thought process, we have devised 20 questions that may help define your objectives. Once you begin to use this approach, you will think of many things to add to the list that are important to you and your family.

For each question, answer "now," "next year" or "10 years."

- Do I like my specialty?
- How do I want to practice medicine?
- Do I want to be my own boss?
- Do I want to be solo/group/employee?
- Why do I want to be solo/group/employee?
- Why would I not want to be solo/group/employee?
- Where do I want to practice? (Location/Part of U.S.)
- Is there a need for me in the area of my choice?
- What does present vs. future growth potential of the area show? Check Chamber of Commerce.
- What does the economic picture show for the area?
- How hard do I want to work? (Hours per week)
- How much time off do I want?
- Personal income objectives?
- Satisfactory hospital facilities for me?
- Are financial institutions aggressive in area toward physicians?
- Will my family be satisfied here?
- Does the area offer right schools, church, etc.?
- Do other MDs seem acceptable toward me?
- Does area offer me other opportunities? Hobby, work, sports, etc.?
- Do I have knowledge and proper procedures needed to totally run my practice?

It is important for you to research your answers to the questions, just as you did for your education.

Keep these questions where they are easily available so that you can review the progress you are making, on at least an annual basis. Do not hesitate to change your mind if you do not feel complete satisfaction with your current roadmap. Reappraisal of your objectives on how and where you practice medicine should never stop.

Mr. Dickinson is president of Simplified Systems, Inc., Noblesville. He also is state director of Physicians Planning Service, Indiana; state manager of the National Association of Professions; and an instructor for the Continuing Education of CPAs.

The 'Mega' Race

Commentary

RICHARD J. NOVEROSKE, M.D.
Evansville

As the United States continues to go metric, its auto races can be expected to be in convenient metric units in time. And as technical advances make faster, stronger race cars possible, year after year, longer races can be expected.

I read with interest about the recent running of the "Indy 500." But I also noticed coverage of a "600" in North Carolina. So a fast 600-mile run is becoming accepted. And this made me think again of something I've wondered about for several years; how about a "Mega" race someplace in the United States? A high-speed race of one megameter—one million meters—one-tenth of the way from the equator to a pole.

A megameter works out to about 620 miles. The North Carolina "600" is almost there. And the "Indy 500" could reach it with a little more effort. If we want to.

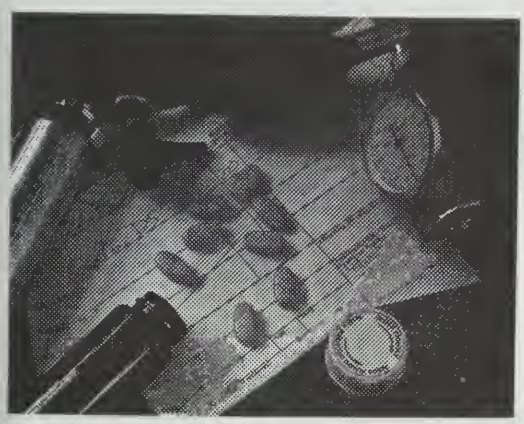
Fans may be reluctant to change the 500-mile race into a metric race. Traditions, habits, die hard.

But it's coming on; in a few years the United States will be metric like the rest of the world.

We may speculate, "Where will the first 'Mega' be held in the United States?"

But we should also ask ourselves, "What will the '500' become when we no longer measure in miles and 500 miles is not a convenient term?"

GOOD NEWS FOR DOCTORS



If you want a busy practice with no office overhead and little paperwork, then consider becoming a member of the Air Force health care team. You'll find medicine can be a great way of life in the Air Force. We can restore much of the satisfaction to your medical practice because we emphasize patient care instead of paperwork. We even provide professional liability protection under the Federal Tort Claims Act at no cost to you. And your income won't stop should you decide to take your family on vacation. We give you 30 days of vacation with pay each year.

We'd like to tell you more — like how our excellent compensation plan applies to you and your opportunities for specialization. Contact your nearest Air Force medical recruiter for more good news. We'll answer your questions promptly and without obligation.

Call Lt. Ted Pantaleo at 317-269-6354 Collect.

AIR FORCE
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Candidates for nutritional therapy...

10,000,000 alcoholics. Ethanol may produce many effects that together bring about nutritional deficiencies, so that alcoholism affects nutrition at many levels.[1]

25,500,000 geriatric patients. The older patient may have some disorder or socio-economic problem that can undermine good nutrition.[2]

23,500,000 surgical patients. Nutritional status can be compromised by the trauma of surgery; and some operations interfere with the ingestion, digestion and absorption of food.[3]



Before prescribing, please consult complete product information, a summary of which follows:
Each Berocca® Plus tablet contains 5000 IU vitamin A (as vitamin A acetate), 30 IU vitamin E (as *dl*-alpha tocopheryl acetate), 500 mg vitamin C (ascorbic acid), 20 mg vitamin B_1 (as thiamine mononitrate), 20 mg vitamin B_2 (riboflavin), 100 mg niacin (as niacinamide), 25 mg vitamin B_6 (as pyridoxine HCl), 0.15 mg biotin, 25 mg pantothenic acid (as calcium pantothenate), 0.8 mg folic acid, 50 mcg vitamin B_{12} (cyanocobalamin), 27 mg iron (as ferrous fumarate), 0.1 mg chromium (as chromium nitrate), 50 mg magnesium (as magnesium oxide), 5 mg manganese (as manganese dioxide), 3 mg copper (as cupric oxide), 22.5 mg zinc (as zinc oxide).

Indications: Prophylactic or therapeutic nutritional supplementation in physiologically stressful conditions, including conditions causing depletion, or reduced absorption or bioavailability of essential vitamins and minerals; certain conditions resulting from severe B-vitamin or ascorbic acid deficiency; or conditions resulting in increased needs for essential vitamins and minerals.
Contraindications: Hypersensitivity to any component.
Warnings: Not for pernicious anemia or other megaloblastic anemias where vitamin B_{12} is deficient. Neurologic involvement may develop or progress, despite temporary remission of anemia, in patients with vitamin B_{12} deficiency who receive supplemental folic acid and who are inadequately treated with B_{12}.
Precautions: *General:* Certain conditions may require additional nutritional supplementation. During pregnancy, supplementation with vitamin D and calcium may be required. Not intended for treatment of severe specific deficiencies. *Information for the Patient:* Toxic reactions have been reported with injudicious use of certain vitamins and minerals. Urge patients to follow specific dosage instructions. Keep out of reach of children. *Drug and Treatment Interactions:* As little as 5 mg pyridoxine daily can decrease the efficacy of levodopa in the treatment of parkinsonism. Not recommended for patients undergoing such therapy.
Adverse Reactions: Adverse reactions have been reported with specific vitamins and

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5,000,000 hospital patients with infections.[4] Many are anorectic and may have a markedly reduced food intake. Supplements are often provided as a prudent measure because the vitamin status of critically ill patients cannot be readily determined.[3]

The incalculable millions on calorie-reduced diets. Patients ingesting 1000 or fewer calories per day could be at high risk because this intake may not supply most nutrients in adequate amounts without supplementation.[5]



minerals, but generally at levels substantially higher than those in Berocca Plus. However, allergic and idiosyncratic reactions are possible at lower levels. Iron, even at the usual recommended levels, has been associated with gastrointestinal intolerance in some patients.

Dosage and Administration: Usual adult dosage: one tablet daily. Not recommended for children. Available on prescription only.

How Supplied: Golden yellow, capsule-shaped tablets—bottles of 100.

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Berocca Plus Tablets provide: therapeutic levels of ascorbic acid and B-complex vitamins; supplemental levels of biotin, vitamins A and E, and five important minerals (iron, chromium, manganese, copper and zinc); plus magnesium. Berocca Plus is not intended for the treatment of specific vitamin and/or mineral deficiencies.

Berocca Plus,
highly acceptable to patients, has virtually no odor or aftertaste and is economical. And its "Rx only" status means more physician involvement, better patient compliance.

References: 1. Shaw S, Lieber CS: Nutrition and alcoholism, chap. 40, in *Modern Nutrition in Health and Disease*, edited by Goodhart RS, Shils ME. Philadelphia, Lea & Febiger, 1980, pp. 1220, 1237. 2. Watkin DM: Nutrition for the aging and the aged, chap. 28, in *Modern Nutrition in Health and Disease, op. cit.*, p. 781. 3. Shils ME, Randall HT: Diet and nutrition in the care of the surgical patient, chap. 36, in *Modern Nutrition in Health and Disease, op. cit.*, pp. 1084, 1089, 1114. 4. Dixon RE: *Ann Intern Med 89* (Part 2): 749-753, Nov 1978. 5. Committee on Dietary Allowances, National Research Council: Recommended Dietary Allowances, ed 9. Washington, National Academy of Sciences, 1980, p. 13.

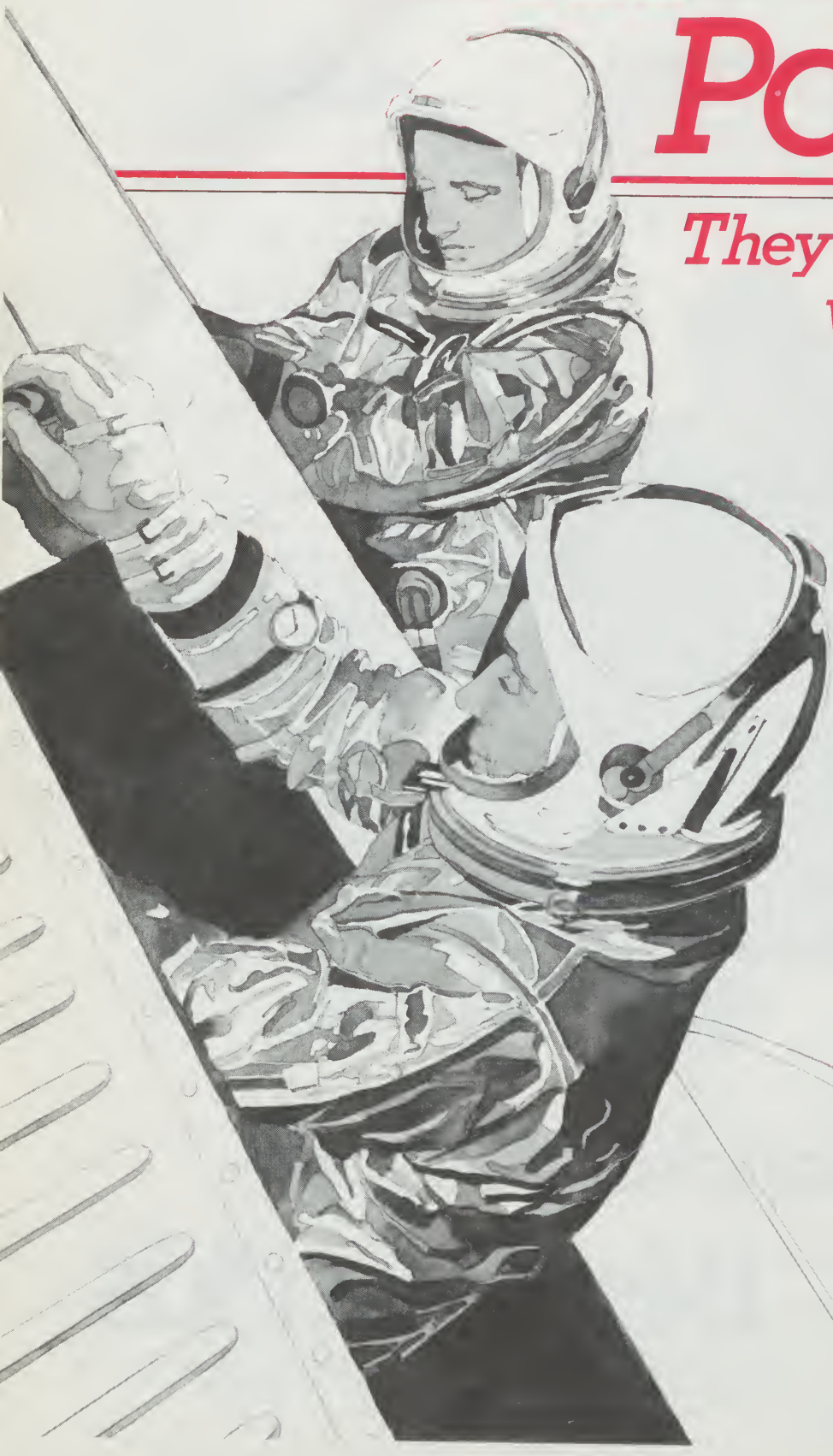
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Anusol-HC®

Suppositories / Cream with Hydrocortisone Acetate

*The #1 physician-prescribed product for hemorrhoids and other common anorectal disorders***

- ☐ *Antiinflammatory, to relieve edema, burning, itching, pain*
- ☐ *Astringent, to help promote healing*
- ☐ *Emollient, for easier bowel movements and soothing relief of local trauma*

And, when pain is a special problem, Anusol Ointment offers the benefits of the anesthetic, pramoxine HCl.

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Pre-Moistened Hemorrhoidal / Vaginal Pads

The #1 hemorrhoidal pad† for added external relief and gentle cleansing of fecal residue

- ☐ *Soothes, cools, comforts the irritation and itch of hemorrhoids and other common anorectal disorders*
- ☐ *Hygienic rectal wipe—an integral part of the anorectal regimen*

Once pain and inflammation subside, for dual action recommend regular ANUSOL®—to maintain patient comfort—and TUCKS®—to maintain patient anorectal hygiene.

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WARNER LAMBERT

**Meeting of Am Soc Colon / Rectal Surgeons, May 1980.*
***Based on total prescriptions filled for hemorrhoidal preparations during the first three quarters of 1981. The National Prescription Audit, IMS America Ltd, Sept 1981.*
†1981 data from leading marketing research organization.

PD-85-JA-0867-P-1 (2-82)

ANUSOL-HC® Suppositories/ ANUSOL-HC® Cream

Before prescribing, please see full prescribing information. A Brief Summary follows:

Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in external and internal hemorrhoids, proctitis, papillitis, cryptitis, and fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

CONTRAINDICATIONS

Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

WARNINGS

The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

PRECAUTIONS

General

Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy

See "WARNINGS"

Pediatric Use

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

DOSAGE AND ADMINISTRATION

Anusol-HC Suppositories—Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

Store between 59°-86°F (15°-30°C)

1089G010

NEWS NOTES

CHAMPUS Update

All CHAMPUS claims should be sent to WPS/CHAMPUS, Box 8923, Madison, Wisc. 53707. That is the address of Wisconsin Physicians Service, which became the CHAMPUS/CHAMPVA fiscal intermediary for Indiana and Kentucky in September 1980.

This reminder is necessary because some claims are still being sent to ISMA headquarters in Indianapolis, which adds unnecessary delay to their filing and processing. (ISMA stopped handling CHAMPUS claims several years ago.)

The CHAMPUS representative for Indiana is Cindy S. Krause, Box 22815, Louisville, Ky. 40222. Tel: (502) 426-7979.

The toll-free number for the WPS Inquiry Service Department in Madison, Wisc., is 800-356-7208.

Orphan Drug Office

The Food and Drug Administration has formed an orphan products development office. Marion Finkel, M.D., formerly associate director for New Drug Evaluation, will direct the project.

Dr. Finkel will have a staff position in Commissioner Hayes' office. It is expected that she will head a group of about a half dozen. She is known for a longstanding interest in drugs of limited commercial value.

License Renewal Reminder

The biennial registration fee for all licensed Indiana physicians is due in the office of the Medical Licensing Board of Indiana by July 1. The fee for the two-year registration period is $40, payable by check or money order. A penalty fee of $20 will be added if the renewal fee is not paid by Aug. 31.

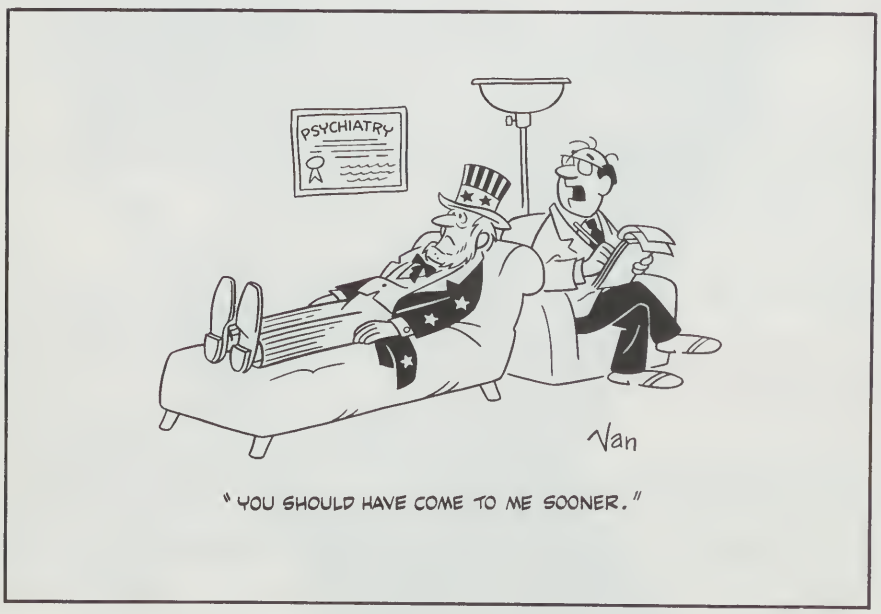
Fees should be mailed directly to the Medical Licensing Board of Indiana, 700 N. High School Road, Indianapolis, Ind. 46224. Tel: (317) 232-1118.

Those Relaxing Aquariums

Researchers in Pennsylvania observed volunteers, both hypertensive and normotensive, before and after they watched either an aquarium with plants and fish or an aquarium with plants but no fish. Each volunteer read from an academic text between tank observations.

The first time around, blood pressures rose slightly. However, later, when the test was repeated, all subjects consistently exhibited a lowering of blood pressure. The hypertensive subjects experienced the greatest diminution.

All blood pressures fell more while the subjects were watching the tank with fish. The researchers think the effect is analagous to that observed during and after meditation. There was no report concerning the effect on the fish.



NARI Raises Loan Amounts

The National Association of Residents and Interns (NARI) has expanded its loan program. The loan amounts available in the Senior Medical Student, In-Training, Going-Into-Practice and Established Practitioner Loan Plans have been substantially increased.

Repayment schedules are flexible and extend up to six years. Loans may be used for almost any personal or professional expense. Interest rates are competitive and, at times, are lower than prime.

Applications for NARI loans should be addressed to Dennis Freeman, Physicians Planning Service Corp., 292 Madison Ave., New York, N.Y. 10017, or call toll-free 800-221-2168.

Health Planning Failure

Dr. Fred Rainey, chairman of the AMA Council on Legislation, says the federal health planning program has failed. In testimony before the House Commerce Subcommittee on Health, he said the program must be repealed so that states can stop certificate-of-need operations without facing federal sanctions.

Dr. Rainey termed the planning program a classic example of the pitfalls encountered in a federal regulatory approach to dealing with local problems.

He said the program overrides the special needs and circumstances of states and localities, imposes a network of bureaucratic entities, carries excessive and expensive paperwork requirements, and shifts policies and directions so frequently "that those who want to comply with the law are continually uncertain of their opportunities and obligations."

As planning evolved over the years, federal officials became less concerned with the original goal of "access to quality care" and more concerned with cost reduction, Dr. Rainey said. Noting that the program also has failed in this regard, he said there is evidence that the certificate-of-need process actually adds to health care costs "because of the expense of preparing CON applications and appealing negative CON decisions and the greater costs of construction resulting from delays in the CON process."

Here and There . . .

. . . **Dr. Daniel P. Akin,** a New Albany otohinolaryngologist, discussed laser surgery at the Beechwood Community Center during an April lecture sponsored by the South Central Indiana Council for the Aging and Aged.

. . . **Dr. Gerald C. Walthall** of Indianapolis has been appointed to the Indiana Speech Pathology and Audiology Board.

. . . **Dr. James M. Williams** of Indianapolis has been appointed to the Indiana Commission for the Handicapped.

. . . **Dr. George W. Hicks,** an Indianapolis otohinolaryngologist, has been elected a Fellow of the International College of Surgeons.

. . . **Dr. Gerald P. Irwin** has been elected president of the medical staff at Community Hospital, Anderson. Also elected were **Dr. Paul L. Ramsey,** chief of staff, and **Dr. Robert S. Kepner,** vice-president.

. . . **Dr. James E. Stephens** of Brazil discussed the connection between weight control and being insulin-free at an April meeting of the Clay County Chapter, American Diabetes Assn.

. . . **Dr. William J. Kopp** of Anderson, medical director of the CareUnit for the treatment of alcoholism and other drug dependencies, St. John's Medical Center, discussed "Alcoholism: A Treatment Disease" at the Medical Center in April.

. . . **Dr. Patricia Bader,** director of the Northeast Genetics Laboratory Counseling Center at Parkview Memorial Hospital, Fort Wayne, has passed the clinical genetics and clinical cytogenics board examinations, sponsored by the American Society of Human Genetics and held for the first time in December 1981.

. . . **Dr. Robert E. Gould,** a New Castle pediatrician, discussed the effects of diabetes on adolescents during an April meeting of the Henry County Chapter, American Diabetes Assn.

. . . **Dr. Charles W. Calhoun** of Seymour has joined other local physicians and members of the staff at Jackson County Schneck Memorial Hospital in hosting family health discussions on "The Doctor Is In," a weekly program on cable TV's Channel 2.

. . . **Dr. Joseph A. Bruckman,** a New Albany urologist and a colonel in the U.S. Army Reserve, has assumed command of the 5010th U.S. Army Hospital from **Dr. Stuart E. Harlowe,** also a New Albany urologist. Dr. Harlowe, a Reserve brigadier general designee, has assumed command of the 2291st U.S. Army Hospital at Columbus, Ohio.

Food Safety Laws

"The U.S. Food Safety Laws: Time for a Change?" has been published by the American Council on Science and Health to present various recommended changes in the laws governing foods, including discussion of the Hatch-Wampler bill, now in Congress, dealing with changes. Copies of the booklet may be obtained by writing to the Council at 47 Maple St., Summit, N.J. 07901.

Synthetic Human Interferon

Interferon may be produced by recombinant DNA techniques. Naturally produced human interferon is very scarce. Synthetic production of colon bacilli after alteration by gene-splicing has proved to be the method by which interferon, identical to that made in human cells, may be made in relatively fantastic amounts as compared to what may be obtained from human sources.

Interferon has been shown to confer resistance to viral infections. Preliminary work on control of malignancy indicates that interferon produced regression of disease in one patient with breast cancer and in two cases of lymphoma. Side effects included fever, pronounced fatigue, muscle pain and headache but these were relieved after the drug was discontinued.

Patent Term Restoration

The Patent Term Restoration Act has been approved by the subcommittee for a full Judiciary Committee consideration. Several amendments have been made to limit the extension rights to the recipient of market-approval, to limit the extended patent to a total of 27 years, to limit the extension to ten years only, and to limit the extension only to products which are patented after the law becomes effective.

. . . **Dr. Maurice J. Norman,** a South Bend cardiologist, addressed members of the Mended Hearts Club in April.

. . . **Dr. Lindley H. Wagner,** director of the Lafayette Medical Educational Foundation, and **Jayne Binz,** Home Hospital pharmacist, discussed "Wise Use of Drugs" during an April seminar at Home Hospital.

. . . **Drs. David J. Carlson, Aly A. Razek** and **Jack O. Williams** of Evansville answered viewer questions during a half-hour TV special, "Cancer Call-in," on WTVW, Channel 7, Evansville.

. . . **Dr. Steven C. Beering,** dean of the I.U. School of Medicine, was guest speaker during the Speedway Lions Club "Medical Month" program in April.

. . . **Dr. Francis W. Price Jr.** of Indianapolis recently presented a paper, Corneal Endothelial Damage from Topical Medication, at the U.S. Intraocular Lens Symposium in Los Angeles. He will return to Indiana in July, after completing a fellowship in Corneal Surgery at Tulane University.

. . . **Dr. L. Y. Frank Wu** of Indianapolis has been elected a Fellow of the American Academy of Allergy.

. . . **Dr. Charles H. Rushmore** of Indianapolis has retired as Medical Director of Indiana Bell Telephone Company. **Dr. C. Ray Prible** assumed the position in May.

CME Quiz . . .

CONTINUED FROM PAGE 401

9. In adult osteomyelitis antibiotics:
   a) Are the mainstay of treatment.
   b) Do not eradicate bacteria in sequestra.
   c) Should be broad spectrum to cover any bacteria colonizing the open wound.
   d) Retard bone healing.
10. A 6 month old infected tibia nonunion with good skin coverage is complicated by peroneal and posterior tibial nerve division and loss of the anterior tibial and posterior tibial arteries. Management might best be accomplished:
    a) With below knee amputation.
    b) Nerve and vessel repair and if successful good osteomyelitis treatment.
    c) Free muscle graft.
    d) With a brace.

NEWS NOTES

Here and There . . .

. . . **Dr. John D. Pulcini,** an Evansville plastic surgeon, has been named recipient of the Vanderburgh County Medical Society's first Physician Community Service Award. The award cited his leadership since 1977 in forming the Metropolitan Evansville Emergency Medical Services Council, of which he is chairman.

. . . **Dr. Patricia A. F. Keener,** an Indianapolis pediatrician, is directing a babysitting course for youngsters 11 through 13. It is sponsored by Community Hospital of Indianapolis.

. . . **Dr. Thomas A. Webb,** an Evansville pathologist, is author of "Systemic Mast Cell Disease: A Clinical and Hematopathologic Study of 26 Cases," which appeared in the March 1982 issue of *Cancer.*

. . . **Dr. Frank J. Amodio,** an Evansville allergist, is co-author of "A Comparison of Immunotherapy Schedules for Injection Treatment of Ragweed Pollen Hay Fever," which appeared in the February 1982 issue of the *Journal of Allergy and Clinical Immunology.*

. . . **Dr. Steven M. Herf,** an Evansville endocrinologist, discussed "The Biostator: An Artificial Pancreas," at Welborn Memorial Hospital in April.

. . . **Dr. Ned B. Hornback,** chairman of the Dept. of Radiation-Oncology, I.U. School of Medicine, has been presented the Marion County Little Red Door's recognition award for his 12 years of service to the cancer organization.

. . . **Dr. Richard G. Blair** of Huntington was the featured speaker during the spring meeting of the Indiana Association of American Physicians and Surgeons.

. . . **Dr. William B. Fisher,** a Muncie internist, discussed chemotherapy in April during the annual meeting of the Cancer Society of Henry County.

. . . **Dr. Robert E. Cleary** of Indianapolis discussed "Recurrent Miscarriage" during an April meeting at Bartholomew County Hospital sponsored by Columbus Area RESOLVE.

. . . **Dr. James E. Moneyhun** has been elected president of the medical staff at St. John's Medical Center, Anderson. Also elected were **Dr. James R. Drake,** chief of staff; **Dr. Harold G. Benedict,** vice-president; and **Dr. Gerald O. Daniel,** secretary-treasurer.

. . . **Dr. Harold W. Hermann** of Evansville has been named vice-president and medical director of Mead Johnson Nutritional Division. He joined the company in 1966.

. . . **Dr. Alvan L. Eller** of Flora has been elected a director of the Bright National Bank of Flora.

. . . **Dr. Maurice J. Norman** of South Bend has been named a diplomate certified in the subspecialty of cardiovascular disease by the American Board of Internal Medicine.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Andrew, Jerald L., Fort Wayne
Babcock, George K., Bluffton
Babcock, James L., Bluffton
Bond, Larry G., Lafayette
Buchman, Marshall H., New Albany
Byler, John J., South Bend
Carruthers, Wallace B., Auburn
Clark, Jack P., Syracuse
Cortese, Thomas A., Indianapolis
Crates, Gordon C., Denver
Dalton, Wilson L., Shelbyville
Eberts, Thomas J., South Bend
Egnatz, Charles D., Schererville
Farag, Rafik S. Fouad, Peru
Ferguson, Philip C., Wabash
Ferry, Francis A., Indianapolis
Foley, Phillip D., Middletown
Frank, Lyall L., South Bend
Fretz, Richard C., Kokomo
Fuller, Robert G., Columbus
Galinis, Algimantas J., Michigan City
Gohil, Jivanlal P., Kokomo
Gootee, Francis H., Jasper
Gray, Kenneth L., Speedway
Gupte, Subodh S., Marion
Haehl, William D., Shelbyville
Hakami, Mohamed T., Vincennes
Halcomb, F. J., Warsaw
Hansen, Jon Michael, Batesville
Harrowe, David J., Terre Haute
Heaton, Elton, Madison
Horner, Terry G., Indianapolis
Hsie, Jen-Yah, Kokomo
Kephart, Stewart B., Bluffton
Kim, Eun Yong, Warsaw
Kincaid, Raymond K., Tipton
McAdams, Hugh B., Lafayette
McClure, Richard O., Carmel
Milan, Joseph F., Bloomington
Moayad, Cyrus, Valparaiso
Mock, Lawrence F., Bluffton
Moore, Thomas S., Indianapolis
Moores, William B., Indianapolis
Neely, Michael L., Danville
O'Brien, Francis E., Rensselaer
Paff, James R., Kokomo
Palmer, Robert M., Indianapolis
Panos, Constantine G., Bluffton
Peduk, Maria A., Evansville
Pirakitikulr, Ungsana I., Crown Point
Pratt, G. Byington, Zionsville
Purcell, Lawrence T., Bluffton
Rai, Swaroop, Huntingburg
Rayes, Jos Luke Hassan, Princeton
Schlaegel, Theodore F., Indianapolis
Serrano, Edward, Greenwood
Shaw, Glenn R., Bluffton
Sklenarz, Krystyna M., Merrillville
Slack, John D., Indianapolis
Soni, Jaidev C., Terre Haute
Spencer, Beaufort A., Bloomington
Steichen, James B., Indianapolis
Stewart, Paul N., Indianapolis
Thomas, Charles R., Indianapolis

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2.	Thomas E. Bailey, Linton	Betty J. Dukes, Dugger	June 3, 1982, Linton
3.	Wallace D. Johnson, Bedford	Peter H. Livingston, Bedford	April 24,25, 1982, Spring Mill Park
4.	Ricardo C. Domingo, Greensburg	Robert P. Acher, Greensburg	May 19, 1982, Greensburg
5.	J. Franklin Swaim, Rockville	Daniel J. Dwyer, Rockville	June 2, 1982, Turkey Run Inn
6.	William F. Kerrigan, Connersville	Wylie G. McGlothlin, New Castle	1982, New Castle
7.	Warren L. Gray, Martinsville	M. O. Scamahorn, Pittsboro	June 9, 1982, Greenwood
8.	Carol R. Chambers, Union City	Susan K. Pyle, Union City	June 23, 1982, Muncie
9.	Lowell R. Stephens, Covington	Theodore C. Person, Veedersburg	June 24, 1982, Attica
10.	Lee H. Trachtenberg, Munster	Barron M. F. Palmer, Hammond	Sept. 22, 1982
11.	Edward L. Langston, Flora	Fred Poehler, Wabash	Sept. 15, 1982
12.	Linus J. Minick, Churubusco	A. B. Donesa, Fort Wayne	Sept. 16, 1982, Fort Wayne
13.	Donald L. Weninger, Michigan City	G. Richard Green, South Bend	Sept. 8, 1982, Michigan City

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OB-GYN needed for 6-man multispecialty group in Crossville, a progressive city and vicinity of 30,000 population in east Tennessee, located on Cumberland Plateau, along Interstate 40. Drawing area of 75,000. Modern Clinic building adjacent to 250-bed accredited community hospital. No investment necessary. Guaranteed salary and fringe benefits. Abundant recreational facilities. CONTACT: Mrs. Louise Taylor, Business Manager, Cumberland Clinic Foundation, 301 Hayes St., Crossville, Tenn. 38555. (615) 484-5171.

DOCTOR'S OFFICE for sale or lease with option to buy. Eight examination and treatment rooms, three doctors' offices, two business offices, laboratory and reception room. Adequate storage. N. M. Welch, M.D., R.R. 3, Box 17, Vincennes, Ind. 47591, or call 812-882-2050.

PUNTA GORDA, FLORIDA—Boarded peripheral vascular-thoracic general surgeon to join 2 general surgeons in busy practice. Located on the Gulf of Mexico, between Tampa and Fort Myers. Contact: John E. Maenning, M.D., 350 Mary St., Punta Gorda, Florida 33950. (813) 639-4646 or 639-1162 (home).

OFFICE SPACE AVAILABLE: Winona Memorial Hospital's Clinic Building has prime office space now available at 3202 N. Meridian St., Indianapolis. 1560 sq. ft. available, including four offices each with their own exam room. A receptionist and waiting area of 375 sq. ft. also available. Easy access to all Winona outpatient services. For more information, contact Mr. E. Randall Wright at 317-927-2223.

DOCTORS NEEDED in Wisconsin and Minnesota, all specialties, all locations. For confidential information, mail your C.V. to Medicus, 1525 Wisconsin Ave., Suite 141, Grafton, Wisconsin 53024.

FOR RENT, The Pointe, 2-bedroom, 2-bath condominium. Weekly rental only. $700 plus damage deposit. 317-251-7213.

EMERGENCY MEDICAL POSITIONS—Emergency Consultants, Inc. has Emergency Medicine opportunities available in resort and metropolitan locations. 60 hospitals in 12 states are currently serviced. Benefits include competitive salaries, paid malpractice insurance, and flexible scheduling. For further information, contact Emergency Consultants, Inc. Call Deb Carsky at 1-800-621-7783.

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FULL-TIME contract position available July 1982 for a physician on the Health Center staff. Current university enrollment 18,000. Support services available locally include comprehensive hospital with complete x-ray and lab facilities. Pharmacy in Health Center. Rotating night call. No hospital rounds. Indiana license required. Competitive salary and fringe benefits. Send curriculum vitae and statement of interest to M. C. Beyerl, Vice President for Student Affairs, Ball State University, Muncie, Ind. 47306. Applications must be postmarked by June 30, 1982. Ball State University practices equal opportunity in education and employment.

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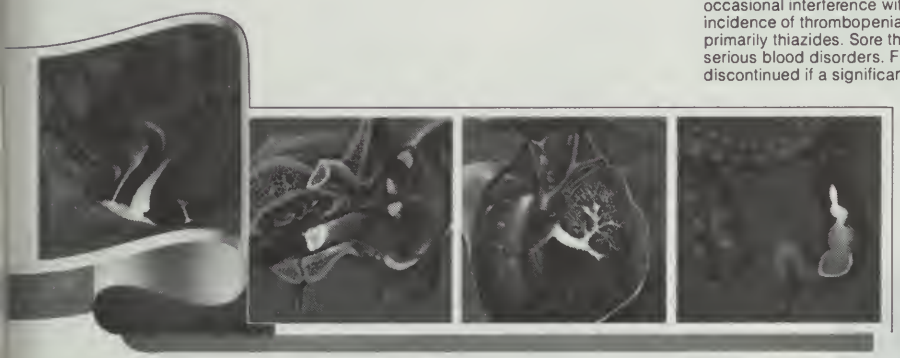
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Bactrim™
(trimethoprim and sulfamethoxazole)
succeeds

Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

Expanding its usefulness in antimicrobial therapy



in recurrent UTI...
a continuing record of high clinical effectiveness against common uropathogens

in acute otitis media in children...
effective against both major otic pathogens...with *b.i.d.* convenience

in acute exacerbations of chronic bronchitis in adults...
clears the sputum and lowers its volume...on *b.i.d.* dosage

in shigellosis...
faster relief of diarrhea than with ampicillin[2]

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia. purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

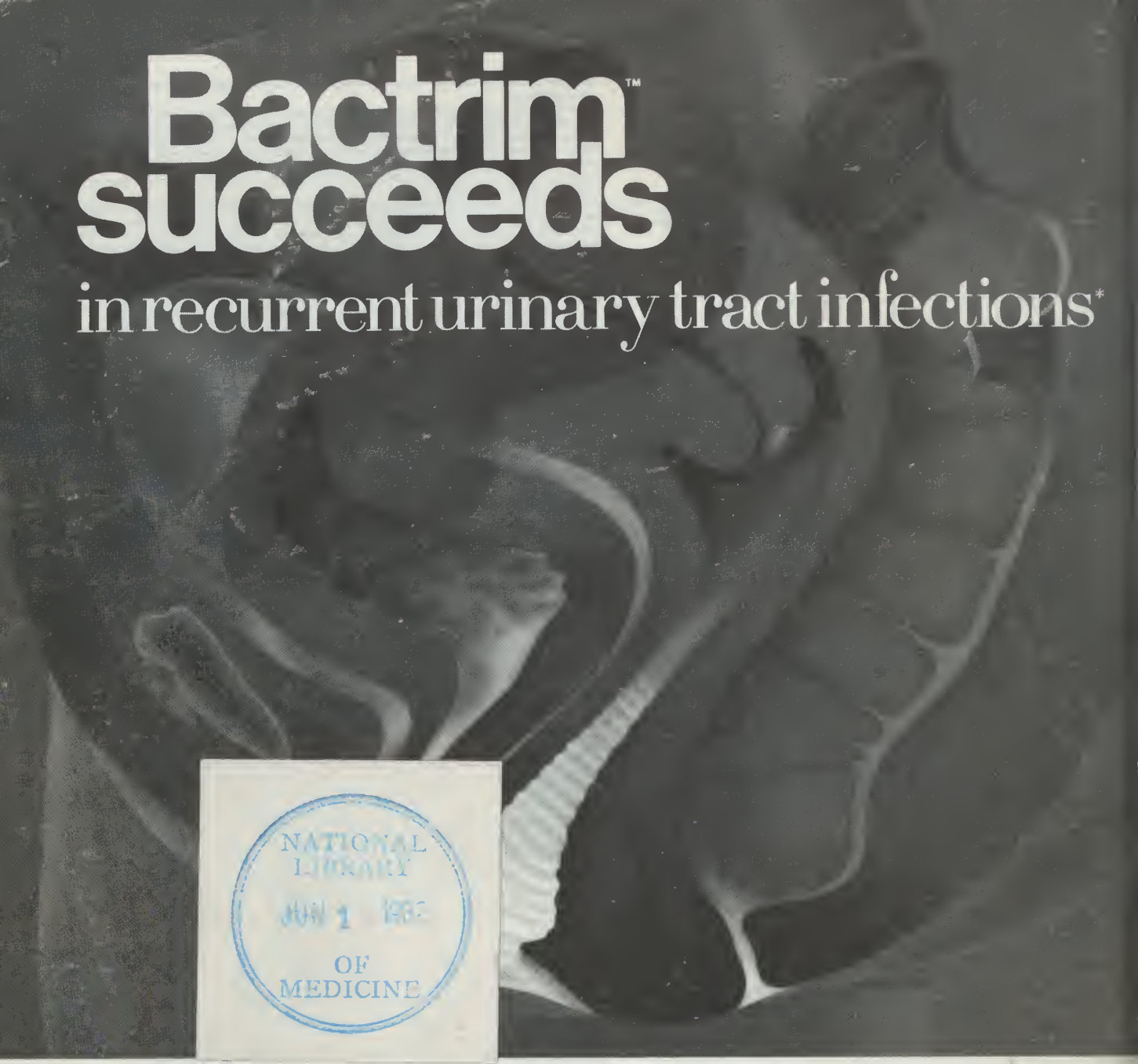
Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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Bactrim™ succeeds

in recurrent urinary tract infections*



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Bactrim continues to demonstrate high clinical effectiveness in recurrent urinary tract infections. Bactrim reaches effective levels in urine, serum, and renal tissue[1]...the trimethoprim component diffuses into vaginal secretions in bactericidal concentrations[1]... and in the fecal flora, Bactrim effectively suppresses Enterobacteriaceae[1,2] with little resulting emergence of resistant organisms.

1. Rubin RH, Swartz MN: *N Engl J Med* 303:426-432, Aug 21, 1980. 2. Data on file, Medical Department, Hoffmann-La Roche Inc.

Bactrim™ DS

160 mg trimethoprim and 800 mg sulfamethoxazole

DOUBLE STRENGTH TABLETS

maximizes results with B.I.D. convenience

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*due to susceptible strains of indicated organisms

Please see previous page for summary of product information

WS 7

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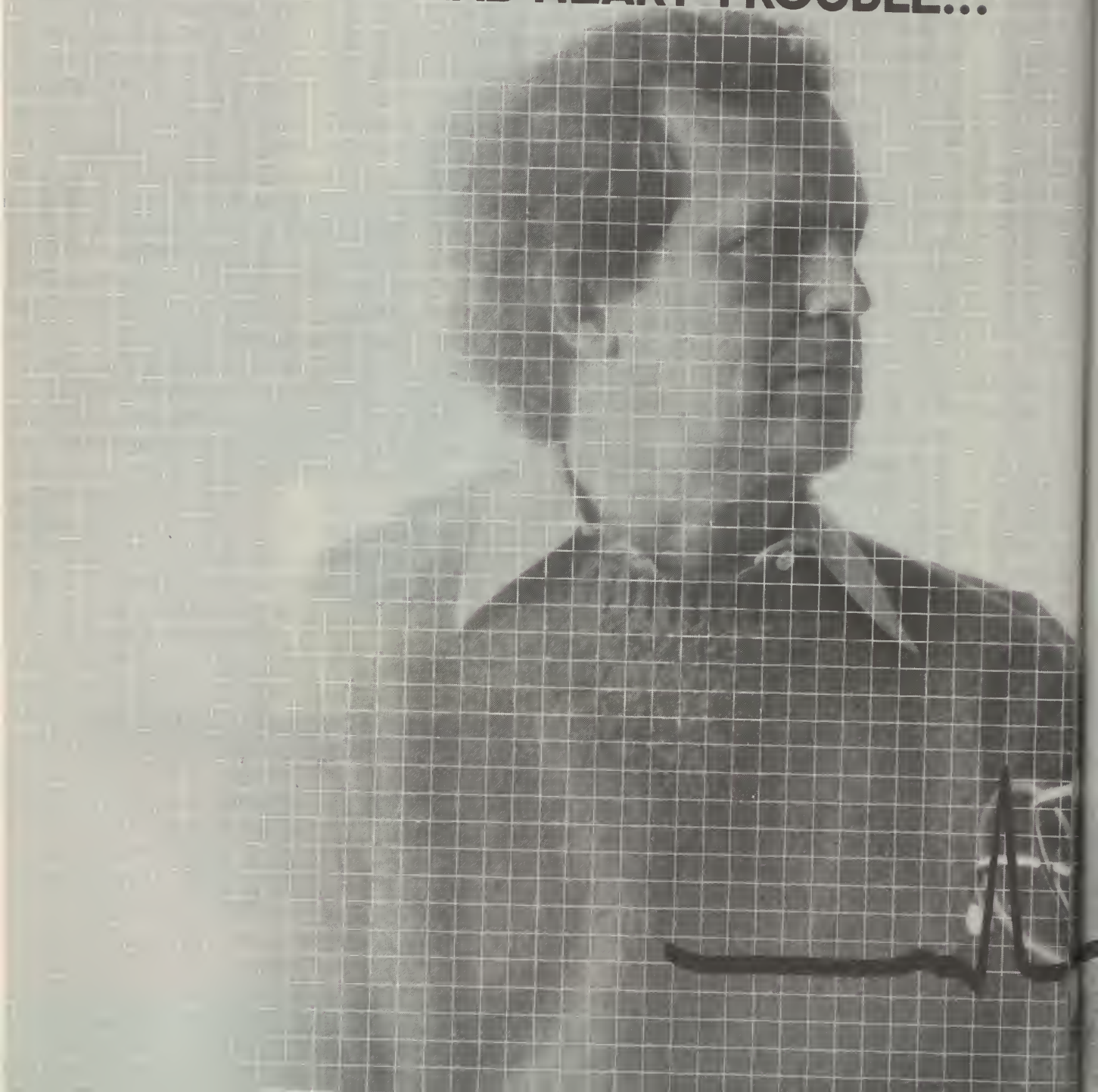
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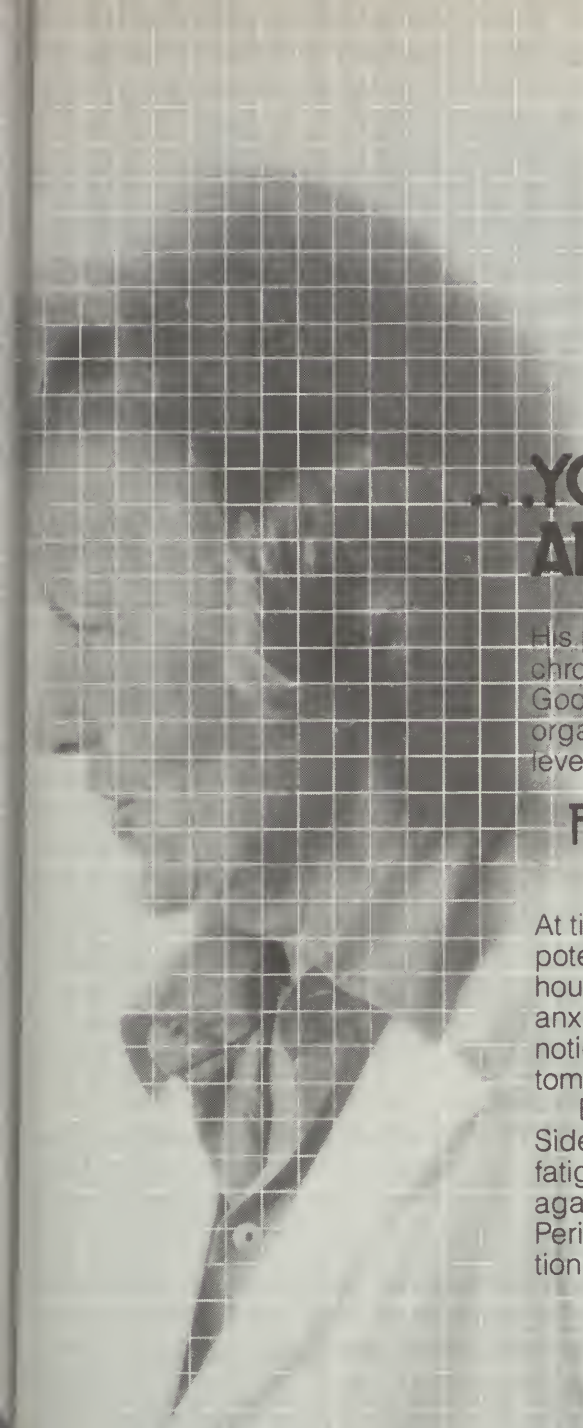
Benjamin Rush

DR. BENJAMIN RUSH: SIGNATORY OF THE DECLARATION OF INDEPENDENCE

See 'Medical Museum Notes'

THE PATIENT THINKS HE HAS HEART TROUBLE...





...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

For rapid relief you prescribe Valium (diazepam/Roche)

At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

VALIUM® (IV)
diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

BECAUSE YOU'RE CONVINCED THE PATIENT NEEDS IT

ROCHE®

Please see summary of product information on the following page.

VALIUM®(diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
How Supplied: For oral administration, Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100* and 500;* Prescription Paks of 50, available in trays of 10.* Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.†

*Supplied by Roche Products Inc., Manati, Puerto Rico 00701
†Supplied by Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, New Jersey 07110

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ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

WHAT'S NEW?

Abbott Laboratories announces a new enzyme immunoassay for the detection of acute primary rubella infection. Rubazyme®-M is the first commercial kit available which is specific for IgM antibodies against rubella virus. The test distinguishes primary from secondary infections. Primary infections in pregnancy place the fetus at risk of congenital rubella syndrome.

Beutlich Pharmaceuticals announces CEO-TWO® suppositories for rectal use. Containing sodium bicarbonate and potassium bitartrate in a water soluble polyethylene glycol base, the suppositories generate carbon dioxide and act as a replacement for liquid enemas. They are non-irritating and do not cause bowel cramps. They are recommended especially for paraplegic and quadraplegic patients and for convalescent and geriatric patients.

Schering Laboratories is introducing Fulvicin P/G 165 mg and 330 mg tablets in keeping with the new dosage recommendations by the FDA for griseofulvin ultramicrosize. Recent research shows that 330 mg and not 250 mg of ultramicrosize griseofulvin is bioequivalent to the standard 500 mg griseofulvin microsize.

Amsco has a new foldaway toilet module. Named the MODULAV® II, the unit combines a foldaway flush toilet with a cultured marble sink top in only 5 sq ft of space. It is intended for bedside installation. Ideally suited for use by patients connected to monitoring equipment or IVs. It is easily connected to existing plumbing and water lines.

The 3M Company has a new electrically powered, microprocessor-controlled monitor that measures and displays pressure changes at the proximal airway of patients receiving mechanical ventilation. The Bird Mean Airway Pressure Monitor No. 9900 measures, calculates and displays all ventilatory data affecting mean airway pressure, such as peak inspiratory pressure, mean airway pressure, positive and expiratory pressure, inspiratory time, expiratory time, cycling frequency and inspiratory-expiratory time ratio.

Stuart Pharmaceuticals now has available Hibiclens® in 15 ml. pocket-sized packettes for use in hospitals and other inpatient facilities. The packette is designed for admission kits, first aid kits, IV carts and for use in blood banks, dialysis units, and wherever handwashing and skin preparations are indicated.

Park Surgical Company is offering, upon request, its latest 76-page, 1982, illustrated catalog of the most modern equipment, supplies and drugs for use with modern technology, in hospitals, nursing homes and for industrial medicine. The firm also supplies medical supplies and safety equipment for schools and camps.

Sherry Products has a new Indoor/Outdoor wheelchair named SPARKY. It is four-wheeled, easily steerable and has a small turning radius. It operates on two 12-volt batteries, using a 24-volt system. It has two gear ratios and is powerful enough to negotiate steep stairway ramps or into a station wagon. The seat, batteries and foot rest may be removed to allow transportation in a car.

Hoechst-Roussel Pharmaceuticals has announced FDA approval of Streptase® (streptokinase) for treating coronary artery thrombosis. Cardiac catheterization and introduction of the catheter into the blocked artery allows an injection of Streptase. When performed soon after the thrombosis the clot may be dissolved and the myocardium supplied by the involved artery is resupplied with oxygenated blood and suffers little or no damage. Clinical research with the method shows that blood flow may be restored in more than 75% of the cases.

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

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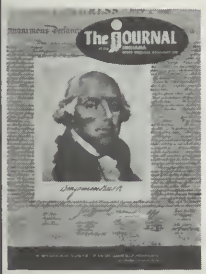
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ABOUT THE COVER

Dr. Benjamin Rush, the "father of psychiatry in America," was a signer of the Declaration of Independence. Both Rush County and its county seat, Rushville, Ind., are named for him. See Medical Museum Notes, page 436.

—COVER BY FRED KINGHORN—

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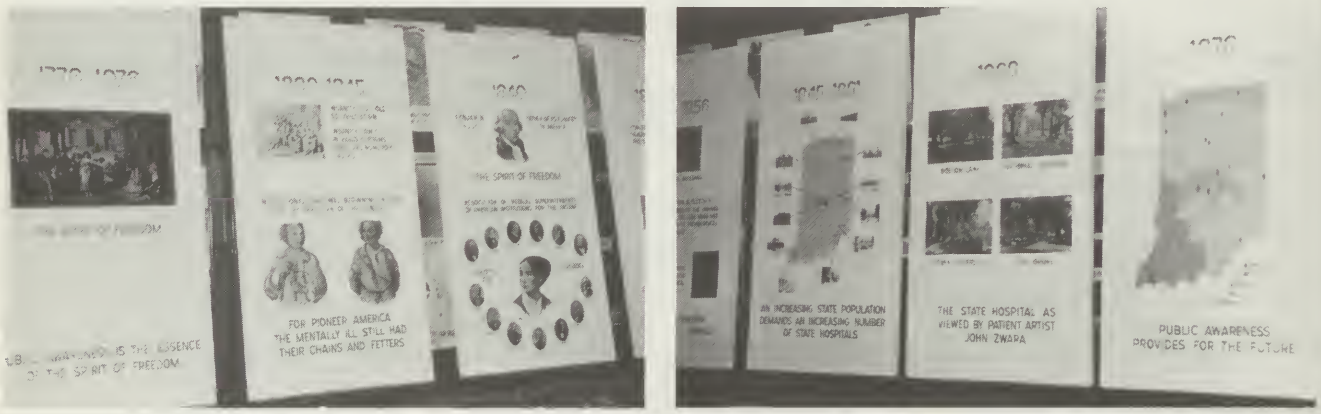
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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis



THIS MONTH'S intent was to provide a cover illustration, representative of the Fourth of July, and to produce a page of Notes relating this illustration to Indiana medical history and to the Museum.

This called to mind a similar goal with the Indiana Department of Mental Health in 1976, for the Bicentennial celebration. The idea at that time was to relate the development of the mental health care system in Indiana to the American Revolution. This was accomplished on 10 panels, using the theme "Public Awareness is the Essence of the Spirit of Freedom." A key medical figure for this exhibit was Dr. Benjamin Rush, signer of the Declaration of Independence and author (among many others) of "Medical Inquiries and Observations on Diseases of the Mind" (1812).

One of these panels (executed by Hoosier artist William G. Ashby) contains a portrait of Dr. Rush. No physician could be more representative of the Fourth of July than Dr. Rush, so this seemed to be the appropriate cover illustration.

But how to relate Dr. Rush to Indiana medicine? Rush County and its county seat, Rushville, were named for him. This, however, has nothing to do with medicine. Dr. Rush was preceptor to William Henry Harrison, first territorial governor of Indiana, and ninth President of the United States. (Harrison, a medical student at the time of his father's death, was forced to abandon the study of medicine in favor of a military career.) This relates Dr. Rush to medicine and to Indiana history but the fact was used previously (Medical Museum Notes, July 1980).

A 10-Panel Bicentennial Exhibit That Never Went on Tour

The panels were considered next. They have never been used in this column before, although the three public programs developed from the panels have been described (Medical Museum Notes, October 1976). These panels in general describe the development of mental health care in America through the efforts of Dr. Rush and others, and in Indiana through the efforts of Dr. John Evans and others. But the material covered is too extensive for a single page of Notes.

One interesting aspect, however, about the panels, which has not heretofore been told, is that the original plan required that they be exhibited in various areas of the state. It was felt that such a tour could damage the panels, which were conceived originally as a museum exhibit. Further, the panels, painted on ¾-inch plywood, were large, heavy and unwieldy. It was considered prudent to have half-size reproductions, by means of color photography, and that these smaller panels, then, be used to tour the state. Completing this smaller set of panels exhausted the project's budget.

The initial exhibition site was the State Capitol Building. During the first night, two of the panels disappeared, presumably stolen, and thus the tour ended, right there where it began.

The original panels are hung in the hallway on the second floor of the Museum. Finished in three colors—red, white and blue for the Bicentennial—they now seem most appropriate for the Fourth of July.

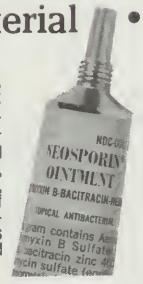
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EDITORIALS

Threat to Public Health

The American Dietetic Association is highlighting a threat to public health as a result of a campaign by those who wish to return to "natural foods." Part of the return to "natural food," it is now realized, involves a return to sale and use of raw (unpasteurized) milk.

A considerable part of the public health improvement which has greatly lowered the incidence of and almost obliterated such diseases as diphtheria, typhoid fever, salmonella, spinal tuberculosis and brucellosis has been due to pasteurization of milk.

Hundreds of cases of Campylobacter jejuni have been reported in states where milk regulations have been weakened. FDA studies show a direct link to raw milk.

Pasteurization is a health measure which produces all advantages and no disadvantages. Informed public opinion should not tolerate abandonment of such a powerful influence for good health.

Weight Lifting by Teenagers

The American Academy of Pediatrics Committee on Sports Medicine emphasizes the potential harm which may accrue to teenagers who indulge in weight lifting. It is pointed out that, while weight lifting is beneficial to physical conditioning in young adults, the use of heavy weights during the teen years may be harmful. The committee recommends that young people who lift weights should be limited to the lesser weights and should always be supervised in their training.

Dr. Samuel R. Mercer

Dr. Samuel R. Mercer for many years, prior to his recent death, was a loyal and devoted member of the professional staff of the Communicable Disease Control Clinic of the Department of Public Health in Fort Wayne.

To express appreciation for and to contribute to the memory of his long and faithful services, The Fort Wayne-Allen County Board of Public Health has designated the Clinic as the Samuel R. Mercer Communicable Disease Control Clinic.

All members of the staff of THE JOURNAL, having become acquainted with the fine qualities and sincere efforts with which Dr. Mercer entered all his many duties, express thanks for the honors which are thus bestowed. Dr. Mercer dedicated many years of careful work to THE JOURNAL as a member of the Editorial Board originally and later as a Consulting Editor.

Missing Ernie Pyle 'V' Letter

At one time during World War II Ernie Pyle mailed a "V" letter to each of the practicing physicians in Indiana. One of these letters recently disappeared from a medical museum. A replacement is desired. If another copy or copies are available for donation to the museum or for the purpose of making photocopies, it is requested that such availability be announced to THE JOURNAL, 3935 N. Meridian St., Indianapolis, Ind. 46208.

THE INDIANA STATE MEDICAL ASSOCIATION
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Health Hazards of Tobacco

Guest Editorial

In February, Surgeon General C. Everett Koop released the annual report on smoking and health. The figures speak for themselves:

Smoking is responsible for 430,000 deaths, $13 billion worth of health care expenses, and more than $25 billion in lost production and wages per year.

"Cigarette smoking is clearly identified as the chief preventable cause of death in our society," reported Koop. The report did not mention the direct link of cigarette smoking as a risk factor in heart attack, so clearly demonstrated by the Framingham study.

The report also does not mention the more than $2 billion in tax revenue from the tobacco industry, nor does it address the number of jobs in this country directly related to the growth, processing and sale of tobacco.

Obviously, we in Kentucky have a special interest in tobacco since it is one of, if not the biggest, cash crops grown in the state.

Despite this, I think the medical profession must speak out more clearly and forcefully against the health hazards of tobacco. To my knowledge, the Kentucky Medical Association has never formally indicted tobacco as a health hazard or gone on record as opposing its consumption.

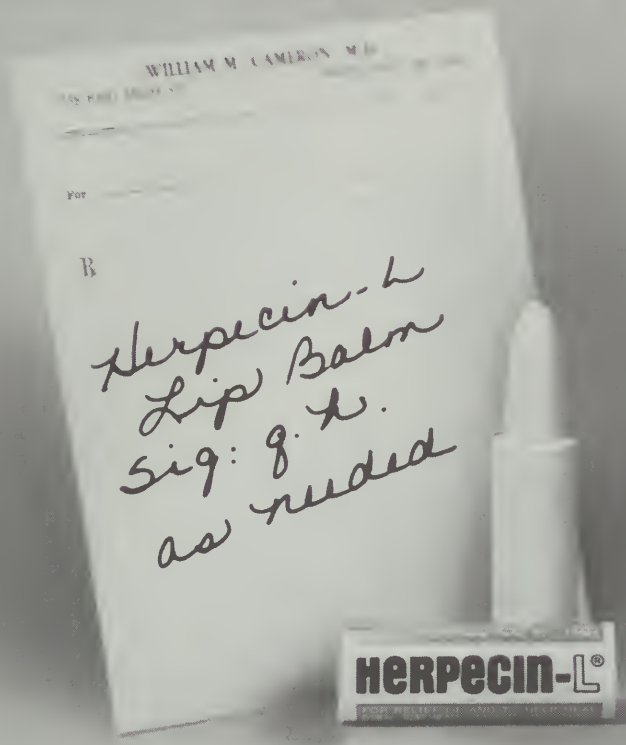
There are several things the individual doctor can do:

- Clearly preach the hazards of tobacco to the individual patient. This does surprisingly little good.
- Every public forum in which the doctor appears should be used as a platform against tobacco.
- The individual county societies should publicly oppose the consumption of tobacco.

Whether any of the above will persuade one person to stop smoking is uncertain. However, if we are persistent in our efforts and consistent in our opposition, in time, it should have an impact that will save lives and prevent the needless agony now endured by the thousands of victims of lung cancer and emphysema.

—Editorial from *The Journal of the Kentucky Medical Association,* May 1982, by Paul C. Grider, Jr., M.D., Louisville. Reprinted by permission.

Dx: recurrent herpes labialis



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Efficient or Effective Care?

Guest Editorial



L. A. ARATA, M.D.
Shelbyville

THIS ESSAY IS INSPIRED by a recent happening at our local hospital. A nursing executive was trying to explain to the medical staff that the concept of "Team Nursing" was to be initiated. This was to result in more *efficient* nursing care. I tried unsuccessfully to find out what *efficient* nursing care meant, and how it differed from the *effective* care rendered our patients over the years by the staff of dedicated, loving, over-worked and underpaid nurses who have been doing such a fine job to date in the face of the difficulties of their job. I still don't know what *efficient* care is, and frankly, I don't give a damn what it is. I just don't want it to get in the way of *effective* care.

While trying to get my thoughts organized on that topic, such thoughts drifted to a larger scene. Why should I care very much about *efficiency* in medical practice? I should be more concerned with *effective* practice than with *efficient* practice. Since I have never tried to be efficient, this mental exercise provided a fine rationalization for me and my type of practice.

From time to time, we doctors are exhorted by the editors of *Medical Economics* and by socio-political leaders to become more efficient so as to see more patients, make more money, and contribute more to the I.R.S. Contributing to the I.R.S. may be a worthwhile endeavor, but I feel no compulsion to go to unnecessary extremes in the matter. Actually, on pondering the situation, it appears that the "efficient" doctors, seeing twice the number of patients I see, have four times the number of headaches I have, pay the I.R.S. twice as much as I do, and end up netting only a few thousand dollars a year more than I.

Like most doctors, I worked my fanny off getting my M.D. degree, and did it willingly because I wanted to practice medicine—not get rich. Early in practice, I discovered that a doctor does not have to "break his neck" to make a comfortable living—so why do so?

The net result is that I practice as I want to—at a snail's pace, enjoying each patient contact. I am doing what I want to do. I enjoy the small children as well as their senile great grandparents in nursing homes. In such practice, I find that many patients seem to get better, a few are cured, and my patients and I enjoy our contact. I find my *inefficient* practice quite *effective*. So, why try to be *efficient?*

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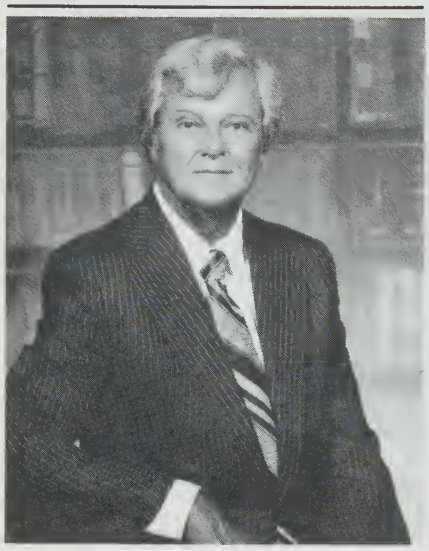
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FTC and the Professions: Let's Tell Congress Our Views



MARTIN J. O'NEILL, M.D.
President
Indiana State Medical Association

A Message from the President

The issue of the Federal Trade Commission's assumed jurisdiction over the professions may soon be settled by the Congress.

The decision is important not only for us as physicians but also for our patients. At stake for the medical profession is our right to set standards to protect the public from deception and incompetence in the medical profession. At stake for individual states is the right to enact laws pertaining to professionals and professional organizations without threat of having them preempted by a non-elected agency. At stake for patients is their right to have qualified and experienced medical professionals responsible for professional self-regulation that embraces a commitment to serve the public and improve the quality of life in our society.

The physicians of America are not asking for exemption from the antitrust laws. We are asking that claims of improper conduct by professional groups be tried in courts with impartial judges—not an administrative hearing before salaried employees of the agency making the charges.

We are asking that the FTC be required to respect duly enacted state laws. And we are asking that the Congress clarify that it never empowered the FTC to regulate not-for-profit professional organizations.

Before the Congress are legislative proposals that agree with our position. They deserve the support of every physician in this country. And our legislators need to know that we support these proposals and why. The FTC is at the center of congressional attention because its authorization expires at the end of this fiscal year, so action may be expected soon.

The two principal bills in the Senate are S. 1984 and S. 2499.

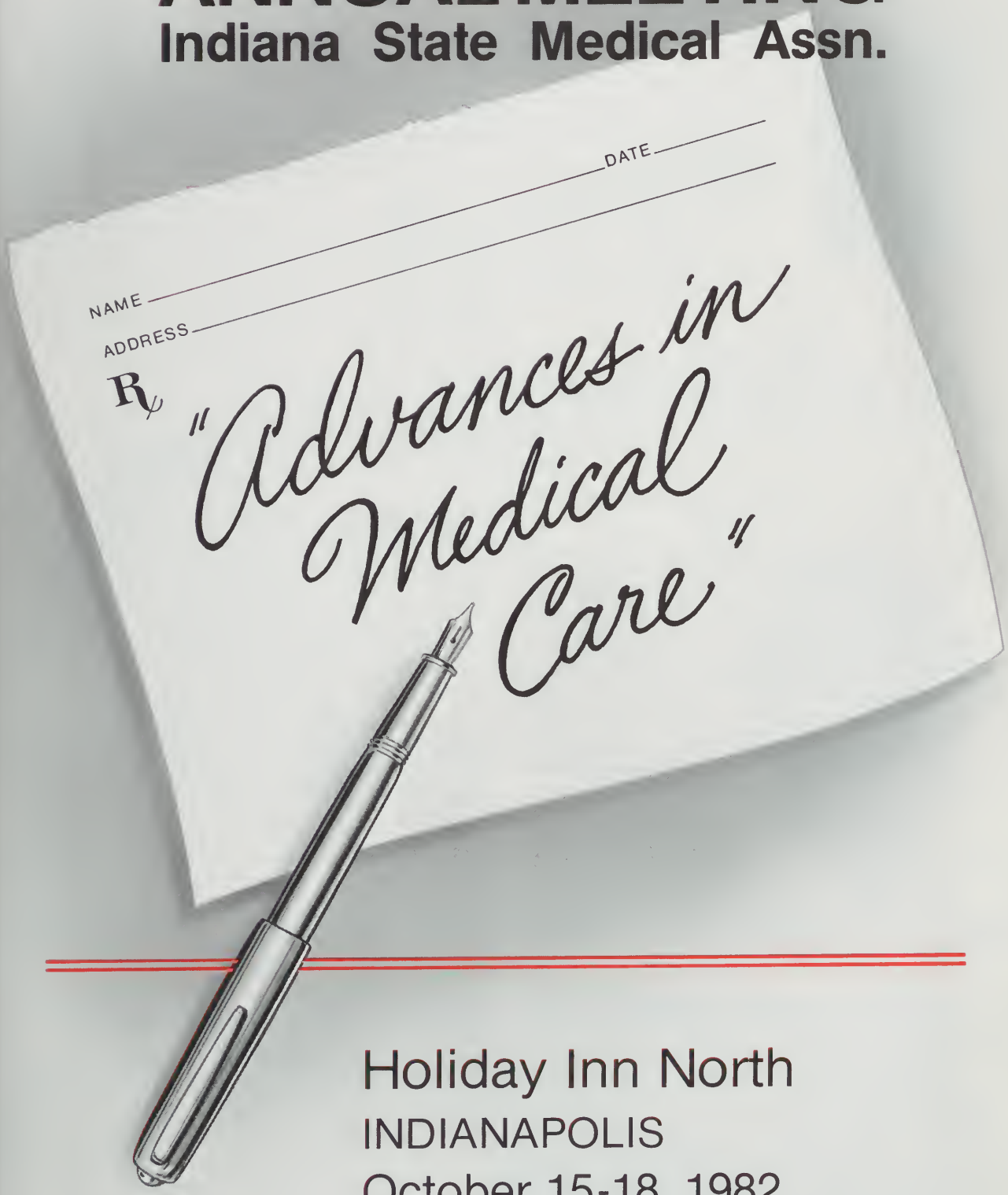
S. 1984 would amend the FTC Act to clarify that there is no FTC jurisdiction over the professions, prohibit FTC preemption of state laws and make major procedural changes in FTC proceedings.

S. 2499 would, among other changes, define unfair acts or practices, prohibit FTC preemption of state laws on scope of professional practice of state-licensed professionals, and extend the congressional veto power on trade regulation rule provisions. That bill, with an amendment clarifying that the FTC has no jurisdiction over state-regulated professions, has been voted out of committee and will go before the full Senate.

In the House of Representatives, H.R. 3722, which has 181 co-sponsors, would place a moratorium on FTC activities regarding state-regulated professions and professional associations.

The vital question of whether the FTC will be allowed to continue its self-appointed role of regulator of the professions will soon be decided. Write, wire or phone your Senators and Representatives and give them your views. Those few minutes you spend could help them make correct decisions affecting our professional future for many years.

1982
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October 15-18, 1982

The Future of Indiana's Auto Industry

The Voice of Business



JOHN W. WALLS
President
Indiana Chamber of Commerce

OF ALL THE STATES, only Michigan has more at stake than Indiana in the labor contracts negotiated recently by the United Auto Workers union with the major auto manufacturers.

More than 30,000 jobs have been lost in Indiana because of the protracted slump in auto sales. This has been a staggering blow to a state of our size. If, as we devoutly hope, the new contracts help increase car and truck sales, they will restore the laid-off thousands to their jobs and improve the entire economy of the state.

For decades the UAW and the auto giants were the toughest of adversaries. Now we may be witnessing a historic turn of events—fists of confrontation turning into handshakes of cooperation for greater productivity and lower costs per vehicle.

We don't want to oversimplify the complex set of problems associated with the serious decline of the domestic auto industry. Yet it is acknowledged that the average U.S. auto worker is paid some $8. an hour more than his or her counterpart in Japan. This is said to amount to as much as $1,500 extra per U.S.-produced car.

Labor leaders are acknowledging the existence of this costly gap, and management is enlisting labor's help. UAW President Douglas Fraser says the union knows the industry is in trouble. Peter Pestillo, Ford Motor vice president for labor relations, said: "Management has found that workers can make a contribution."

The importance of the new settlements lies in their contribution to easing labor costs and improving productivity.

UAW members voted to accept contracts in which they gave up a number of days off, deferred cost-of-living increases and made other concessions. The auto firms agreed to install profit-sharing plans, improve benefits, and experiment with the concept of "lifetime employment" at a few plants.

Success of this effort will mean more jobs, larger payrolls, and greater purchasing power, thus increasing steel usage and sales of appliances and other consumer goods. Larger payrolls will mean more government revenue, which the state needs very badly right now to balance its books and meet the cost of many deferred expenditures.

The intriguing thing about labor-management cooperation for greater productivity in the auto industry is that the techniques can be applied in other industrial operations.

There has been a rapid increase in the number of firms reporting the adoption of quality of work life plans and employee participation programs. The key is labor-management cooperation in solving problems and reaching decisions for mutual betterment. The payoff is not only better quality and increased productivity but greater job security.

Implicit in the new approach is recognition of the humanity of the worker, the dignity of the individual and the enormous resource inside each person for contribution to the common good.

In the Productivity Workshop that the Indiana State Chamber of Commerce held this month, for example, twice as much time was allocated to human resources as to robotics, factory automation systems and other technological and procedural innovations. And Gov. Orr's Labor-Management Advisory Committee, led by UAW President Dallas Sells and Indiana Chamber Chairman Richard DeMars, is an important contribution to the new understanding.

Hoosiers are hardworking people. We are convinced they will do their part in helping make Indiana's industrial products competitive with those produced anywhere in the world.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy,* Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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Medical Assistants: Professional Helping Hands for Physicians

RALPH E. HAGAN, M.D.
Richmond, Va.

AS THE PRACTICE of medicine has become more complex and specialized, the medical assistant has become the physician's most valuable allied health professional—and the American Association of Medical Assistants (AAMA) has become organized medicine's best ally. The professional development offered to its members by AAMA can make the difference between an amateur and a professional office staff.

Professional medical assistants are committed to self-development and lifelong learning. They are concerned not only with earning a living but also with serving patients.

Qualified medical assistants can perform many administrative, clinical managerial and supervisory functions, freeing the physician to spend more time in direct patient contact. AAMA is dedicated to the education of this multi-skilled professional.

AAMA recognizes that competence in the field requires medical assistants to communicate effectively, to adhere to ethical and legal standards of medical practice, respond to medical emergencies, and to demonstrate professional characteristics. In response to increased patient awareness and technological advances, medical assistants, through AAMA, have assumed more responsibility for patient care tasks and developed specialities within the field.

Medical assistants are the first and last health care professionals to see the patient in the office. They are in a unique position to reflect the philosophy of the office and set the tone for everything that happens there. The medical assistant's impact on a physician's success and efficiency may be even greater than he realizes, for it is the medical assistant who bridges what some have called the greatest communication gap in our society—that between the physician and his patients.

AAMA is attuned to the problems of modern medical practices. AAMA realizes practices that fail to treat today's patients with dignity and respect are in for a rude awakening.

Malpractice suits in all areas of health care are increasing. The majority of these suits arise from misunderstanding—real or imagined slights and neglects. A patient is less likely to file a suit against an office where he feels he has received professional, just and courteous treatment.

Writing in St. Paul Fire and Marine Insurance Company's *Malpractice Digest,* Neil Bernstein points out that, by the time the patient walks into the examination room, he has had the time and experience to form a pre-judgment of the care he will receive. This pre-judgment is related to such non-medical factors as the appearance and management efficiency of the office, and the level of knowledge and personal understanding displayed by staff members.

As agents of physicians, medical assistants should be thoroughly versed in medical law and ethics as they apply to the physician-patient and the medical assistant-patient relationship.

Toward that end, AAMA has recently prepared a fourth guided study program, *Law and Ethics for the Medical Office.* It describes legal and ethical responsibilities as they relate to the practice situation. It provides guidelines for defensive medical practice that can be assimilated by every health care professional working with the physician. While an understanding of the psychological and psychosocial needs of the patient was presented in AAMA's guided study program, *Human Relations for the Medical Office,* the law and ethics program emphasizes the cause-and-effect relationship of meeting patient needs. The course offers legal defense procedures on professional liability suits, confidentiality and release of medical records, and preparation of court documents.

Farsighted and prudent physicians quickly learn that encouraging their medical assistants' educational growth and professionalism is an inexpensive way of promoting self-esteem, loyalty

Dr. Hagan is vice-chairman of the Physician Advisory Board of the American Association of Medical Assistants (AAMA).

and efficiency. Recognizing the contributions of medical assistants to our practices by supporting their active participation in AAMA is a simple way to enhance their proficiency and help reduce malpractice claims. With increased competence, medical assistants enable physicians to enlarge the scope and quality of their services. When we encourage the personal growth and development of our medical assistants, we also encourage them to tap their own potential and become more effective members of the health care team.

Commitment to high standards in certification, accreditation and continuing education is the hallmark of AAMA's professionalism. The three educational arms of AAMA—Certifying, Continuing Education and Curriculum Review Boards—work constantly to help members increase their competence and the quality and scope of their services.

Besides the stimulation of peer interaction and prestige of belonging to a professional organization, AAMA offers organized educational activities, planned meetings, study groups, continuing education programs and workshops to broaden members' knowledge.

AAMA was organized in 1956; its primary objective is professional self-improvement, to enable each medical assistant to better serve the medical profession and the public. AAMA inspires its members to give honest, loyal and efficient service, to improve their educational background, and to better serve their employers. It is to the physician's advantage to encourage AAMA membership.

Physicians depend upon medical assistants to manage their offices competently and efficiently. AAMA's potential membership is estimated at 300,000 to 500,000 members, yet its current membership is less than 16,000. With AAMA as its representative, medical assisting as a whole could be the strongest and most important allied health profession to physicians.

According to its bylaws, AAMA is not, nor can it ever become, a union or collective bargaining agency. In addition, the association has been commended by the American Medical Association on six separate occasions.

For further information, contact the American Association of Medical Assistants, One E. Wacker Drive, Suite 2110, Chicago 60601. The investment of your time today can result in physicians, medical assistants and patients *all* benefiting as AAMA helps its members fulfill their professional obligations.



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To obtain Category 1 credit for this month's article, complete the quiz on page 473.



Genetic Treatment

DAVID J. GOLDSTEIN, M.D.
Indianapolis

TREATMENT FOR genetic deficiencies are commonly used but infrequently considered to be genetic therapy. As an extreme example, each of us suffers from many genetic deficiencies; all of us have defects in that we do not have enough hair to keep us warm on a blustery winter day, so we wear clothes. Less extreme is our inability to make vitamin C, so we take it in our diet. Some of us have other genetic deficiencies, for instance, diabetes mellitus. With this deficiency many people take insulin, a gene product, to help handle sugars. Thus, when a genetic treatment becomes common it loses its genetic identity.

When there is a defect in a metabolic pathway it can be approached from various vantage points. One can modify the substrate concentration, one can bypass the substrate and convert enzyme by giving the product or one can change the activity of an enzyme.

To modify a substrate, various techniques can be used. Dietary restriction is used in PKU to prevent the buildup of phenylalanine. Chelation, plasmaphoresis, and affinity binding are used to remove excess material before damage occurs.

In chelation, a drug such as penicillamine can be bound to the material, such as copper in Wilson disease, so that it will be preferentially removed from the body. In plasmaphoresis, plasma with large amounts of toxic material can be removed to reduce the amount of toxin, or dialysis can be done to remove small molecules. With affinity binding, a resin can be used to preferentially bind the toxic molecules. This has been used with limited success in hypercholesterolemia. In this case, cholestyramine resin binds cholesterol in the gastrointestinal tract.

For urea cycle defects, nitrogen acceptors have been given to enhance the secretion of waste nitrogen, thus making use of an alternative metabolic pathway. Thus, additional arginine or ornithine increases argininosuccinic acid production and secretion.

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Another method used to prevent accumulated substrate from becoming toxic is surgical redirection, which can prevent accumulation of this material. In glycogen storage disease, venous bypass of the liver has redirected sugar so that less is made into glycogen, effectively preventing many of the side effects of glycogen storage disease.[1]

The product also can be manipulated. Modification of the product can prevent the formation of a toxic product by use of metabolic inhibitors. In Lesch-Nyhan syndrome and gout, allopurinol is used to inhibit the production of uric acid and thus alleviate the symptoms. At times the deficient product can be given when it is not made in a particular disease. For example, thyroxine can be used to treat congenital hypothyroidism or cretinism.

Another way of treating genetic metabolic diseases is to modify the effectiveness or activity of enzymes. There is a class of metabolic diseases known as the "vitamin responsive metabolic diseases." Each is relatively rare but as a group they are not uncommon. Many of the enzymes involved in these diseases have an abnormal attachment for the co-factor necessary for activity (deficient co-factor activation). Giving pharmacologic doses of co-factor results in driving equilibrium so that more enzyme becomes active. Not long ago a fetus was identified with vitamin B_{12} responsive methylmalonic acidemia. The fetus was treated *in utero*[2] with mega dosages of vitamin B_{12}, was born without evidence of the disease and was described as normal at six years after continuing on this megavitamin therapy.[3]

Another method for increasing endogenous enzyme activity is the stimulation of enzyme production. In many of the metabolic diseases there is a small amount of residual activity. If the general enzyme production can be increased, this small amount of residual activity also will increase. This has been accomplished for many liver enzymes by nonspecific stimulation of the smooth endoplasmic reticulum by phenobarbital. This has been used to increase the rate of conjugation of bilirubin in premature infants.

TABLE 1
Categories of Genetic Treatment

GENETIC THERAPY

METABOLIC MANIPULATION
DIETARY MANAGEMENT (Substrate elimination)—PKU
DRUG THERAPY—Enzyme Inhibitors, Enzyme Stimulators
PRODUCT REPLACEMENT—Hormones
PRODUCT ELIMINATION—Chelation, Plasmaphoresis

GENE PRODUCT THERAPY
ENZYME (or Peptide) REPLACEMENT—Insulin, Growth Hormone, Clotting Factors
ALLOTRANSPLANTATION

GENE THERAPY

SURGERY
PRENATAL—Hydrocephalus, Posterior Urethral Valves
POSTNATAL—Cleft lip and palate, heart defects, etc.

An alternative treatment is the replacement of a deficient enzyme or gene product by giving normal protein. The easiest case is a serum protein replaced by giving plasma. Thus, in alpha-1-antitrypsin deficiency, where the deficient protein is not found in the serum where it functions, a plasma transfusion will supply the alpha-1-antitrypsin from a normal donor. More common examples include the hemophilias where giving plasma components will replace the deficient clotting factor.

Red cells also can be used to replace gene products in individuals who are deficient in a particular red cell protein. This is used commonly when an individual has a deficient hemoglobin. This transfusion of red cells can normalize the oxygen-carrying capacity of that person. In addition, blood cells contain enzymes, so giving red cells to patients with a red cedlenzyme deficiency can restore normal enzyme activity. An example is the enzyme adenosine deaminase, which causes an immune deficiency that can be corrected after a transfusion of red cells.

One problem with giving serum or red cell transfusions is that there are a lot of additional proteins in plasma and red cells which a patient might not need and which may act as antigenic determinants. Eventually, these antibodies, because they can lead to subsequent complications, might preclude the treatment.

Thus, attempts have been made to use purified enzymes or proteins for correction of gene product deficiencies. These purified substances are injected intravenously.[4,5,6] Insulin, used in the treatment of diabetes, is the most common example. Another common example is the use of factor VIII in hemophilia.

There have been problems with the technique of replacement therapy using purified human proteins: First, the human enzyme is not always readily available; second, the purification method can be quite complex; third, if animal protein is used, antibodies can develop; fourth, the protein may not go to the site where it is needed; and fifth, the protein may not remain active for a significant time period.

Because of some of these problems with replacement therapy, specifically the survival of the enzyme and the direction to a particular organ, methods for targeting the product to specific tissues have been studied. If one adds specific glycosyl groups to a protein, it can be recognized by a specific tissue for uptake, or glycosyl residues can be added or modified specifically to keep the protein in circulation. Another significant problem has been the penetration of the blood brain barrier. In pharmacology and oncology, this prevents treatment of central nervous system infection with the aminoglycosides used for treatment of some bacterial infections and treatment of central nervous system malignancy with methotrexate used to kill tumor cells. Recent research has demonstrated methods for breaking down this barrier,

at least temporarily. One method is the use of intravenous oxygen emboli.[7] Another is the use of concentrated mannitol solutions.[8] Both of these increase the permeability of the barrier so that proteins can cross.

Another approach to stabilization and targeting has been the packaging of enzyme in red cell membranes (ghosts) or in artificial lipid membranes. Artificial lipid membranes have been modified so that they will be taken up by specific tissues. One such modification could be antibody bound to the exterior of the artificial membranes so that it will be recognized by a particular tissue. Additional methods have been the adding or removing of glycosyl residues so that these vesicles will be trapped in specific tissues.[9]

Because of the problems of obtaining pure human material, targeting material to the particular site needed and the production of antibodies to the injected gene product or contaminating material, allotranplantation (the transplantation of a tissue from one individual into another of the same species) has been gaining favor as a treatment method for enzyme defects.

Thus, allotransplantation serves as "enzyme transplantation." One needs to select those tissues t are most involved and balance them with our ability to succeed with the transplantation. For example, much effort is being expended to replace defective islet cells in diabetics with normal islet cells. These allographs have normalized the blood sugar levels for up to one year.

Bone marrow transplantation is being studied as a method for treating Hurler disease and there are reports that Hurler patients have improved chemically and clinically after bone marrow transplantations from family members.[10] One problem that has been left open is the ability of the α-L-iduronidase replaced by the bone marrow cells to cross the blood brain barrier. This leaves the ethical problem of treating the body although the mind might continue to deteriorate. Experimentation with animal models is of particular benefit for studies such as this. In the case of osteopetrosis where the brain is not abnormal, defective osteoclasts can be replaced by bone marrow transplantation.[11] For the treatment of the hemoglobinopathies such as thalassemia, bone marrow transplantation has not yet been of benefit. Hobbs recently has written a review of bone marrow allotransplantation.[12]

Other tissues also have been transplanted.[3] Liver allographs have been used to treat Wilson disease, alpha-1-antitrypsin deficiency and Niemann-Pick disease. These allographs have not survived for more than one year, however. Spleen allographs for Gaucher disease also have been rejected and success has been mixed for patients with Fabry disease who receive kidney transplants. The lack of success may be due partly to the typical donor being a heterozygote since he or she is generally the parent of the affected individual. In such cases, the transplanted organ has about half of the normal enzyme activity, which means the transplant may be only marginal in its ability to correct a metabolic deficiency.

Problems with allotransplan..ation are those of any transplantation. There is the possibility of rejection, and the toxicity of drugs used to prevent this rejection. There is also the possible graph vs. host reaction. In these cases, there is an autoimmune attack on the host tissue. Thus, one can see limitations for this method and that is the reason for our interest in gene therapy. In gene therapy, one replaces a defective or absent gene with a normal one so that the individual can produce the needed gene product.

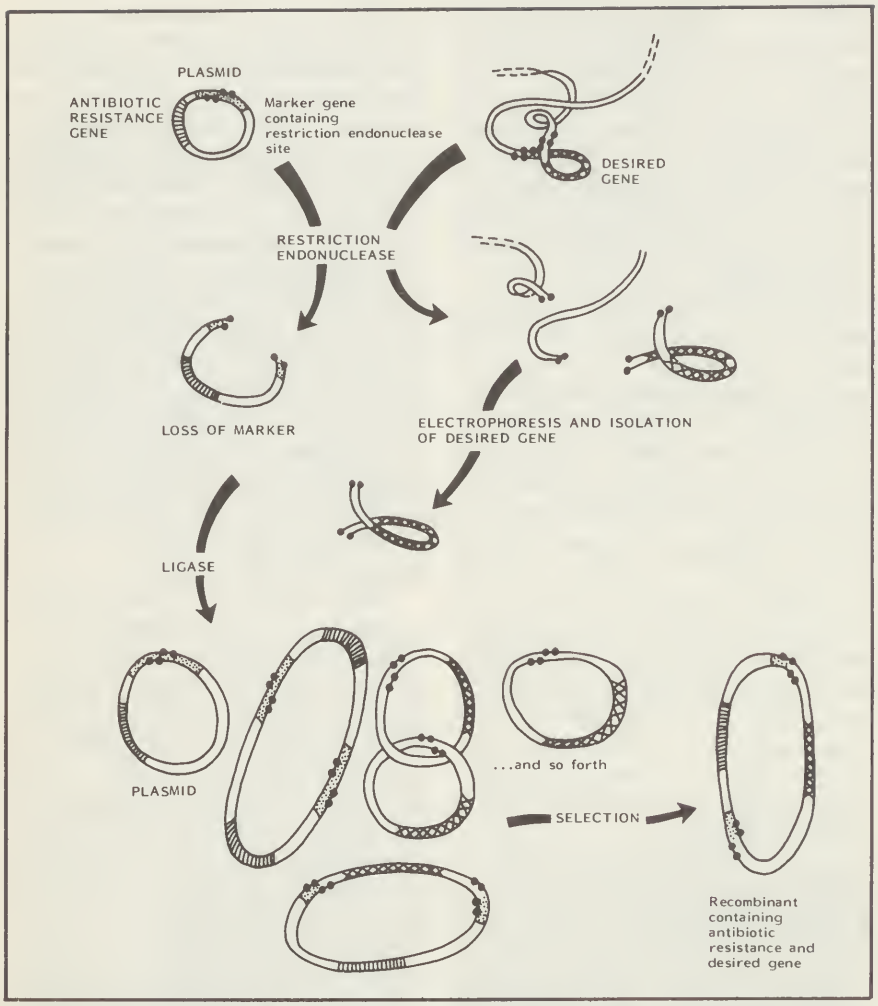
On the simplest level, bacteria have been directed to produce a needed gene product. This solves many of the problems in obtaining and purifying human proteins. Because this is still an expensive task, drug companies have begun this work with those proteins that they foresee to be the most lbcrative. Thus, they are producing insulin, growth hormone and the various interferons. The process by which this is done is as follows:

First, the gene of interest is obtained. Second, the plasmid (a circular extra chromosomal DNA) containing a selection gene such as one for antibiotic resistance and a marker gene, generally a different antibiotic resistance gene, is opened using a special enzyme called a restriction endonuclease. This cuts corresponding sequences in each open end and is selected to break the marker gene. The gene of interest also has been cut with this restriction endonuclease and has the same complementary sequences as the plasmid. This gene is purified by electrophoresis and, after Southern blot analysis, by elution from the gel. A synthesis promotor is attached to this gene so that it can be read in the bacteria into which it will be placed.

Third, the gene of interest is attached to the plasmid DNA using an enzyme called ligase, which reestablishes the circular structure of the plasmid. Fourth, the recombinant DNA molecules are taken up by the bacterium. Finally, the bacteria are grown in an antibiotic so only those containing the recombinant plasmids will survive. Then those remaining are selected for the absence of marker and the presence of the desired gene product. These bacteria are then encouraged to produce the gene product. Once the gene product is produced, it is purified (*see figure*).

On a more complex level, this can be done in man. The desired gene can be attached to a selection gene and it can be added to cells in culture. A few of these cells can be encouraged to take up this DNA and after selection only those cells expressing the DNA will be growing. These cells can then be autotransplanted into the donor. Another possibility is the treatment of a zygote or other early stage of development, perhaps by transduction (viral mediated DNA incorporation). If the added DNA is incorporated into the chromosomal material, it can be passed onto future generations.

The first attempt at gene therapy was made in the early 1970s by Stanfield Rogers.[13,14] Dr. Rogers noticed that in-



Simplified schematic of recombination of a desired gene with a bacterial plasmid.

dividuals working with the Shope virus had a lower serum arginine level than the control population. When injected into the skin of rabbits, it caused skin cancer. However, when given intravenously there was no ill effect although the serum arginine of the rabbits was lowered. It became evident that those individuals who had experimented with Shope virus had been infected with the virus. There were no ill effects in these people even though many had been infected for more than two decades.

Dr. Rogers subsequently demonstrated that the virus could infect fibroblasts in culture and that the cells that were deficient in arginase, an enzyme in the urea cycle, would have this deficiency corrected by the production of viral encoded arginase. The disease caused by the deficiency of the enzyme arginase was recognized in a family in Germany. This arginemia was a severe metabolic defect resulting in severe progressive mental retardation and intractable seizures. Dr. Rogers purified the Shope virus and shipped the purified virus to Germany where the affected children's doctor injected them with this purified material. An uproar occurred in the media and subsequently Dr. Rogers lost funding and his academic position. Of the two children who were injected, the older child who was treated with the larger dose of Shope virus initially appeared to be doing better than the younger two siblings who were on the same diet (personal communication).

It took about a decade for the next human trial of gene therapy. Martin Cline and others demonstrated successful gene transfer in mice by adding methotrexate-resistant genes to bone marrow cells in culture.[15] After reinjecting these modified bone marrow cells into the mouse, he showed resistance of the mice to methotrexate and the presence of an attached viral gene. They then took human hemoglobin genes and attached a viral promotor in hopes of using this promotor to stimulate production of normal hemoglobin. He then transformed bone marrow cells from two thalasemia patients and reinjected their transformed bone marrow cells. There was no apparent improvement in their disease. The uproar resulted in Dr. Cline's subsequent stepping down from his chairmanship and a loss of some grants and increased supervision of his work.[16]

However, animal work continues in this area. There have been reports of the incorporation of rabbit beta-globin genes into frog embryoes,[17] human beta-globin genes into developing mice [18] and rabbit beta-globin genes into mice and their expression in offspring.[19]

It will not be long before gene therapy will be a feasible approach to treating genetic disease.[20] It is important for us to contain our enthusiasm and to do the proper initial experiments to maximize success. Much of this work will involve the use of animal models. The staff of genetic centers such as that at Indiana University keep up with the various aspects of genetic treatment as well as diagnosis. We are interested in helping you to determine whether such new therapies will be of benefit for your patients as well as counseling them regarding recurrence risks and prenatal diagnosis. Ultimately, we may be able not only to treat genetic disease but may even be able to insert genes to increase resistance to cancer and heart disease.

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Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	MESANTOIN	MESTINON
Category:	Anticonvulsant	Parasympathomimetic
Brand Name:	Mesantoin, Sandoz	Mestinon Bromide, Roche
Generic Name:	Mephenytoin	Pyridostigmine Bromide
Dosage Forms:	Tablets	Tablets, Syrup, Injection, Sustained release tablets

	HIPREX	HERPLEX
Category:	Urinary anti-infective	Antiviral (ophthalmic)
Brand Name:	Hiprex, Merrell-National	Herplex, Allergan
Generic Name:	Methenamine Hippurate	Idoxuridine
Dosage Forms:	Tablets	Ophthalmic solution

Sterilization of the Retarded: A Break in the Impasse?

H. C. MOSS, M.D.
R. J. SHELLEY, M.D.
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FOR THE LAST two years in Indiana, it has been practically impossible to sterilize or abort any retarded girl or woman who could not understand the operation and sign her own permission form. The expressed reason: Parents and legal guardians have no right to interfere with the fertility of the ward in their care. Under current hospital rules, the reproductive process takes precedence over other human rights, including the right *not* to be fertile.

Nationally, the breakpoint in the informed consent problem for the patient appears to be about IQ 70. At that level or above, the patient may request sterilization—if she has attained the age of majority. Any female with an IQ below 70 is rebuttably presumed to be unable to understand the meaning and purpose of the operation. No one else can consent for her, and since she is unable to consent freely, the operation cannot be performed.

Correspondence: H. C. Moss, M.D., President, Voluntary Sterilization Association of Indiana, Inc., 1564 N. Downey Ave., Indianapolis, Ind. 46219.

Years ago, the mother of Linda Kay Sparkman requested a court order authorizing the sterilization of her daughter. The mother's affidavit stated that the child was somewhat retarded and stayed overnight with men. The mother sought the operation to avoid "unfortunate circumstances." Judge Stump ordered the sterilization, which was performed.

In a subsequent lawsuit against Judge Stump by Linda Sparkman and her husband, the federal district court determined that he was immune from civil liability and, therefore, could not be subject to money damages for ordering the sterilization. The Seventh Circuit Court of Appeals reversed the district court. The United States Supreme Court then reversed the decision of the Court of Appeals and ruled that Judge Stump was immune from suit for damages.[1]

The case was remanded to the Court of Appeals for a determination of whether a lawsuit could be maintained against the girl's parents, her attorney, the hospital where the sterilization was performed, and the doctors who performed or assisted in the sterilization. Although the Court of Appeals held that, under the particular facts presented, the lawsuit could not proceed, a majority of the judges indicated the view that the federal civil rights statute in question did authorize such a suit and that damages could be obtained if concerted action by such defendants were alleged and proved.

Following that 1979 ruling, Indiana hospitals revised their rules, which had allowed sterilization of incompetent persons upon submission of the results of psychological testing, psychiatric and gynecologic consultation concerning the patient's inability to meet the demands of parenthood, and the signature of the parent or parents, the legal guardian if there were one, or the "next friend" responsible for the care of the retarded individual.

An earlier ruling of the Indiana Court of Appeals had held: "[T]he common law does not invest parents with such power [to authorize sterilization] over their children, even though they sincerely believe the child's adulthood would benefit therefrom."[2] In that case, the parents of a brain-damaged 15-year-old boy sought to have him sterilized. He was attending a retarded workshop, was becoming interested in girls, and his mother feared that he would impregnate one of his peers. His retardation was the result of an automobile accident. During the two-year period prior to trial, the boy's IQ had risen from 65 to 83. The court properly ruled that he might improve still further and that, therefore, he should not be sterilized. Unfortunately, the court then editorialized that *no* parents should have the right to obtain sterilization of their children, absent a medical emergency.

In 1981, the New Jersey Supreme Court considered the proposed sterilization of Lee Ann Grady, a 19-year-old girl afflicted with Down's Syndrome (mongolism).[3] The court held that sterilization of an incompetent individual is permissible if found to be in the individual's best interest and specified certain criteria for determining when such best interest exists. Its ruling has no binding effect on Indiana courts or hospitals.

Early in 1980, the parents of a retarded autistic girl aged 11, in consul-

tation with doctors, agreed that she should have a hysterectomy. The Legal Services Organization (LSO) learned of the intended procedure and filed suit against the parents, requesting a permanent injunction to prevent them from having the child sterilized.

With the help of Voluntary Sterilization Association of Indiana, Inc., the parents went into court for four days in June and July 1980. Testimony of a doctor from Indiana University Medical Center showed that two major central-nervous-system operations had failed to help the girl. The results of tests and other evidence indicated a complete inability of the child to care for herself. Her psychiatrist—one of the world's authorities on autism—considered the menstrual function to be a threat to the child's life and health. The LSO produced an expert from Seattle, Wash., who testified against the proposed operation after visiting only a short time with the child. The judge ruled against LSO, which has appealed the decision.

Conclusion

Voluntary Sterilization Association of Indiana, Inc., believes that retarded females have a constitutional right to be free from unwanted pregnancy. The advocates of the contrary position apparently believe that the right to procreate takes precedence over the converse right to sterilization.[4]

A normal adult has the power to decide which constitutional right to exercise. If retarded individuals, who are unable to make decisions, continue to be denied a mechanism for such decision-making, they will be denied the right to choose solely because of their disability. Denial of the right to sterilization may impose parenthood on many individuals who would not want to be parents were they capable of choosing sterilization. We need a simple, direct, and economical method of providing the benefits of infertility for those who are unable to make such a decision for themselves.

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Late Presentation of Intraventricular Hemorrhage in Term Infants Without Predisposing Factors

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THERE ARE FOUR major types of neonatal intracranial hemorrhage: subdural, subarachnoid, periventricular (intraventricular and/or intracerebral) and intracerebellar hemorrhage.[1] Intracerebral hemorrhage with or without subsequent extension into the ventricular system is a well recognized and common complication of prematurity.[2,3]

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Recognition of intracerebral and intraventricular hemorrhage (IVH) in full-term infants is unusual, but has increased with the widespread use of computerized axial tomography (CAT) and ultrasound evaluations. Most reported full-term infants with intracerebral or IVH have been symptomatic in the first 48 hours of life.[4-6]

Factors (difficult delivery, respiratory distress, hypoxia, hypotension and hypernatremia) predisposing to intracerebral and IVH in the preterm infant frequently are present in term infants with intracerebral hemorrhage.[6-8] Few cases of intracerebral and IVH in full-term infants symptomatic after the first week of life have appeared in the literature, and all but one have been associated with predisposing factors.[6,8] This report describes two term infants with IVH who first became symptomatic at seven and eight days of life and in whom there were no predisposing factors.

Case Reports

Case #1 was a 3,720-gram female product of an uncomplicated pregnancy, labor and vaginal delivery. Apgar scores were 8 and 10 at one and five minutes, respectively. She was discharged from the normal nursery at three days of age. She was admitted at seven days of age with a 24-hour history of poor feeding and a 12-hour history of intermittent tonic seizures associated with cyanosis.

Examination showed an irritable infant. The fontanelle was soft and the occipital frontal circumference (OFC) measured 34.0 cm. The cerebrospinal fluid (CSF) was hemorrhagic and did not clear. A spun specimen was xanthochromic. The CSF red blood cell count was 280,750/mm^3, white blood cell count 195/mm^3, glucose 41 mg/dl and protein 328 mg/dl. The hematocrit, white blood count, differential, serum magnesium, calcium, sodium, potassium, chloride measurements and coagulation studies (platelets, PT, PTT) were normal. The CSF, blood and urine cultures were sterile.

CAT scan done on the day of admission *(Figure 1)* revealed a hemorrhage in the area of the head of the left caudate nucleus with extension into the left lateral ventricle. Seizures were easily controlled with phenobarbital. On the second hospital day, the patient began feeding without difficulty and the remainder of the hospital course was benign.

CAT scan at 18 days of age showed partial resolution of the hemorrhage and CAT scan done at 32 days of age showed complete resolution of the hemorrhage with ventricles of borderline size for age. At six weeks of age the patient was developing normally, neurologic examination was normal and the OFC measured 37.2 cm.

Case #2 was a 2,175-gram male product of an uncomplicated pregnancy, labor and delivery. Apgar scores were 7 and 9 at one and five minutes, respectively. He was discharged from the nursery at four days of age. He was admitted at eight days of age with a 24-hour history of poor feeding, vomiting and intermittent tonic seizures.

Examination showed a lethargic infant with split sutures and a full fontanelle; the OFC measured 34.2 cm.



Figure 1: CAT scan of Case #1 showing a hemorrhage in the left lateral ventricle at seven days of age.

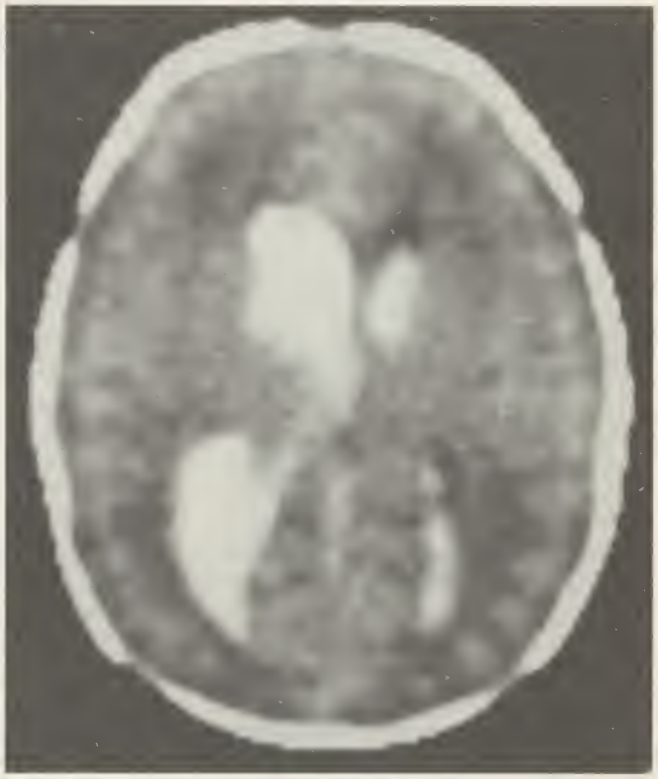


Figure 2: CAT scan of Case #2 demonstrating intraventricular hemorrhage and hydrocephalus.

Eyes were deviated downward and clonic seizures were observed. The CSF was hemorrhagic and did not clear; a spun specimen was xanthochromic. The CSF red blood cell count was 840,000/mm^3, the white blood cell count 1510/mm^3, glucose 13 mg/dl and protein 468 mg/dl.

CAT scan done shortly after admission showed blood in all four ventricles with hydrocephalus *(Figure 2)*. The hemorrhage was thought to originate from the head of the right caudate nucleus. The hematocrit, white blood cell count and differential, platelet count, PT, PTT, serum glucose, calcium and magnesium values were normal. The serum sodium was 123 mEq/l while the remainder of the electrolytes was normal. Seizures were easily controlled with phenobarbital. The patient's hospital course was complicated by daily temperature elevations to 39°C. Blood, CSF and urine cultures remained sterile. Gradually, the infant became more responsive and began feeding well. The OFC at discharge was 34.0 cm.

A CAT scan at 33 days of age showed clearing of the hemorrhage with a moderately dilated ventricular system. At five weeks of age the neurologic examination showed normal muscle tone, 2+ distal tendon reflexes, appropriate stepping and placing reflexes, mild head lag and appropriate following. The OFC measured 36.6 cm.

Discussion

Intraventricular hemorrhage in the term infant was previously thought to be rare; however, with the increased use of CAT scanning and ultra-sound examinations, IVH in term infants is being reported with increasing frequency.[5] Donat, Mitchell and Palma described nine full-term infants with IVH, each diagnosed at autopsy.[6-8] In their series, the IVH always was associated with major illnesses including respiratory distress, congenital heart disease, other congenital anomalies and infection.

Chaplin *et al.* reported three full-term infants with intracerebral hemorrhage without intraventricular involvement. Each infant presented before 36 hours of age, and in two labor was difficult.[4] We previously have described eight full-term infants with intracerebral and/or IVH. All but one presented before 36 hours of age; the remaining infant presented at four days of age. In the majority, labor and delivery was benign, hypoxia was absent and seizures were the major clinical manifestation.[5]

Recently, Mitchell *et al.* reported six and Palma *et al.* three term infants with cerebral and IVH who presented between one week and three months of age. Hemorrhage occurred most often in association with obstetrical complications or severe systemic problems such as hypernatremia, acidosis, de-

hydration and hypoxia, and in two cases child abuse was strongly suspected. Only one infant had no precipitating factors.[6,8]

Our two infants were unusual in that each was considered a normal newborn, was discharged from the nursery at the usual age, and then developed lethargy, poor feeding and seizures requiring readmission at seven and eight days of age. In addition, the infants had no recognized predisposing factor (traumatic delivery, hypoxia, hypernatremia, hypotension or acidosis).

Presently, our patients are doing well. Neither has developed progressive hydrocephalus; however, the follow-up time has been quite short. A longer follow-up period is needed to determine the quality of life of term infants after IVH.

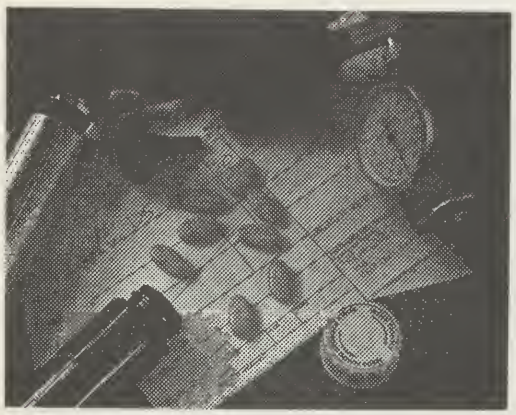
Summary

The detection of intracerebral and IVH in term infants appears to be increasing. Intracerebral hemorrhage with or without intraventricular extension may present beyond the immediate newborn period in infants previously considered normal, and it may occur without recognized precipitating factors. Any young infant with seizures not explained by metabolic or infectious processes should be investigated for intracranial hemorrhage.

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Successful Management of Hypercalcemic Crisis

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STEVE T. ARTHUR, M.D.

HYPERCALCEMIA is a relatively common clinical problem. Approximately 2% of routine admitting laboratory tests demonstrate elevated calcium.[1] The majority of these patients are asymptomatic, and represent a wide variety of pathologic states. In the past decade, multiphasic screening tests have become the most common source of detecting parathyroid adenomas, although this is not the most common cause of hypercalcemia.

Some patients, however, still present with symptomatic hypercalcemia, resulting in such problems as peptic ulcer disease and nephrolithiasis. On rare occasions, a patient will present with hypercalcemic crisis manifested by weakness, nausea, vomiting, stupor, coma and tachycardia. Since there is a high mortality rate associated with unrecognized and uncontrolled hypercalcemia, it is imperative that the patient undergo prompt and efficient diagnosis and urgent therapy.

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This paper describes such a patient who is unusual because of her age and documented development of severe hypercalcemia secondary to a parathyroid adenoma. Diagnostic and therapeutic measures are summarized.

Case Report

The patient is a 78-year-old Caucasian woman who was admitted to her local hospital with a one-week history of confusion and weakness. Her admitting SMA-12 was normal except for a serum calcium of >15 mg% and a low normal serum phosphorus. The patient was begun on a regimen of hydration and diuresis but she was uncooperative, which made this therapy difficult. A parathyroid hormone level was found to be 3720 pg/ml (normal <500 pg/ml). She was then transferred to the Indiana University Medical Center for further evaluation and treatment.

Three months prior to this admission, she had been hospitalized for a hip fracture. At that time, all lab values were within normal limits including calcium, phosphorus, and albumin/globulin ratio.

Review of the patient's past medical history was essentially negative. She had no history of kidney stones, ulcer, pancreatitis, malignancy, or endocrine abnormalities, and her family history was negative for endocrinopathies.

Upon admission, the patient was found to be disoriented to time and place. Physical exam revealed only a slightly irregular heart rhythm and arthritic changes especially involving her hands.

Her admitting laboratory statistics were as follows: calcium—14.5 mg%; phosphorus—3.0 mg%; tubular resorption of phosphorus (TRP)—56%; alkaline phosphatase—97 IU/L; amylase—126 IU/L; and A/G—4.8/2.6. A chest x-ray revealed scattered granulomas and kyphosis, and the distal clavicles were severely demineralized. Hand films revealed narrowing and erosive changes at the DIP and PIP joints. Pelvic films demonstrated demineralization and degenerative changes in the lumbar spine. An intravenous pyelogram showed no gross abnormalities. A CT scan of the neck was read as demonstrating a questionable mass near the right lower pole of the thyroid.

The patient was begun on intravenous normal saline at 150 cc/hr. This rate was slowly increased to 200 cc/hr with the addition of furosemide, 20 mg, four times per day. Over the next several days, the patient's serum calcium decreased to 11.7 mg%, while the serum phosphorus rose to 3.4 mg%. However, she showed only minimal improvement in her mental state.

She was taken to the operating room one week after admission and was found to have a parathyroid adenoma arising from the inferior left thyroid area. This was histologically found to be a parathyroid adenoma of the chief cell variety.

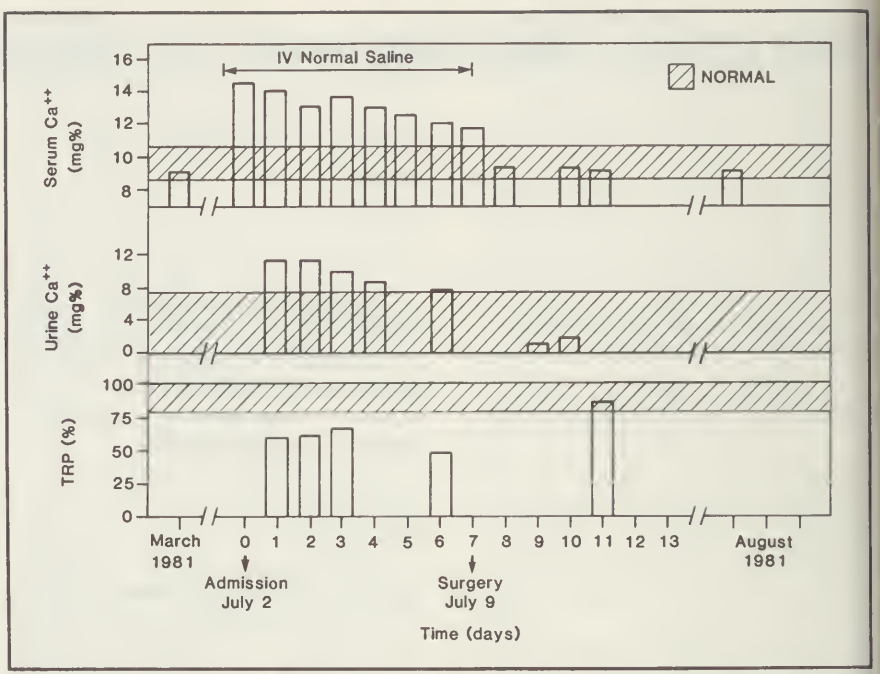
The patient's post-operative course was uneventful. Twenty-four hours after surgery, her serum calcium was 9.3 mg% and remained normal throughout her hospital course. Her confusion and weakness totally resolved by the third post-operative day. At the time the patient was discharged, her lab values were: calcium—9.1 mg%; phosphorus—2.5mg%; and TRP—88%. Thirty days post-op, her serum calcium was 9.2 mg%, and she was totally asymptomatic.

Discussion

Hypercalcemia may result from many disease entities. Most causes may be determined by careful investigation relying heavily upon laboratory studies. Hyperparathyroidism is commonly associated with hypercalcemia, but it is not the most common cause. Malignancies are the most frequent cause of hypercalcemia, with breast cancer being responsible for nearly 50% of the malignancy-associated hypercalcemias. Other carcinomas commonly causing hypercalcemia are lung carcinoma, renal cell carcinoma, multiple myeloma and leukemia. Studies that detect carcinoma as the etiology of the hypercalcemia include a thorough history and physical exam, and appropriate radiologic and laboratory studies.

Thiazide diuretics are also a frequent cause of hypercalcemia as a result of their calcium-retaining effect and are important because of their common usage in antihypertensive and cardiac disease therapy. Vitamin D intoxication and milk-alkali syndrome as a cause of hypercalcemia, while more rare, can be elicited by history. Other less common causes of hypercalcemia to consider are sarcoidosis, hyperthyroidism, and voluntary or imposed immobilization.

Primary hyperparathyroidism usually presents with elevated serum calcium and decreased serum phosphorus. Other laboratory values that aid in diagnosis are elevated parathormone (PTH), elevated urinary calcium, increased chloride/phosphorus ratio (normal <33), and a decreased tubular resorption of phosphorus (TRP). Parathormone has three effects on the kidney: It enhances renal tubular reabsorption of calcium; increases urinary excretion of phosphorus along with sodium, potassium, and bicarbonate; and promotes conversion of 25-hydroxycholecalciferol to 1,25-dihydroxycholecalciferol. The decreased TRP is a function of the increased renal clearance of phosphorus and should return to a normal level ($>78\%$) when the PTH decreases to a normal level. The TRP can be calculated using the following formula:



Serum and urine calcium levels from the time of diagnosis to the early postoperative course in the patient presented in the case report. Shaded areas represent normal values. TRP = tubular resorption of phosphorus.

$$TRP = 1 - \frac{\text{(urinary phosphorus) x (serum creatinine)}}{\text{(serum phosphorus) x (urinary creatinine)}} \times 100$$

A spot urine with the appropriate blood levels is sufficient to calculate the TRP since concentrations of creatinine and phosphorus are used. Twenty-four hour urine collections are no more accurate and are therefore not needed.

Asymptomatic hypercalcemia does not require urgent therapy. A thorough investigation is needed to determine and eliminate the cause but is not associated with the urgency required when treating hypercalcemic crisis.

Hypercalcemic crisis may occur when the serum calcium exceeds 15 mg%. The patient may exhibit symptoms of hypercalcemic crisis, such as altered sensorium, weakness, and tachycardia, at levels below 15 mg%. Prompt treatment is necessary because of the high mortality, due to cardiac arrhythmia, associated with hypercalcemic crisis.[2,3,4,5,6]

Initial therapy involves vigorous hydration with intravenous normal saline. If renal and cardiac function are not impaired, the normal saline should be infused at a rate of 250-500 ml per hour.[2,7] The calcium-lowering effect is twofold: First, hypercalcemic patients are commonly dehydrated because of the osmotic diuresis produced by the calciuria, and secondly, sodium competitively inhibits the renal tubular reabsorption of calcium. It is recommended that the calcium-wasting diuretic furosemide be added to this regimen in doses of 20-100 mg per hour.[3,6] The patient's progress should be monitored by measuring hourly urine volume.

Other reported therapeutic modalities include the cytotoxic antibiotic, Mithramycin, which acts by inhibiting bone resorption and produces its effect within 48 hours. It is given by intravenous bolus at 25 mg/kg body weight every three or more days.[5,7,8] Repeated doses increase the chance for toxic effects on bone marrow, liver or kidney.

Calcitonin is another hypercalcemic agent that inhibits bone resorption, but its effects are short-lived. It is particularly useful when hyperphosphatemia

is associated with hypercalcemia. The normal dose is 50-100 MRC units intravenously, followed by subsequent doses of 50-100 MRC units subcutaneously every 12-24 hours.[7,8]

Glucocorticoids also have a hypocalcemic effect, but they have a slow onset of action, up to one week, and therefore are of limited value for hypercalcemic crisis.[8] Intravenous infusion of phosphate reduces serum calcium by precipitating calcium as bone, but may cause serious complications due to cardiac arrhythmias and irreversible renal damage. This technique is probably of historic interest only since the above methods are almost always successful and safe.

Once the etiology is elicited, corrective therapy should be carried out when the patient is stable. If the elevated calcium is due to carcinoma, surgery or chemotherapy may help decrease serum calcium. Neck exploration for suspected parathyroid adenoma is definitive treatment for this disease.

Summary

Hypercalcemic crisis is a potentially life-threatening illness. Because of the nonspecificity of the symptoms, the diagnosis may be missed. With the advent of multiphasic screening, however, the clinical diagnosis may be made but overlooked if the SMA-12 is not scrutinized. Exact diagnosis is possible by relatively simple tests on urine and serum. This case demonstrates that even the elderly may have this problem and, therefore, rapid diagnosis and treatment are aided by having a high index of suspicion.

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Wegener's Granulomatosis: Curable Cause of Rapidly Progressive Renal Failure

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Terre Haute

WEGENER'S granulomatosis (W.G.), is a rare syndrome characterized by necrotizing granulomatous lesions of upper and lower respiratory tracts, necrotizing glomerulonephritis and varying degrees of disseminated vasculitis.[1,2] Clinical and pathological features of W.G. vary widely from patient to patient. If untreated, it is considered a fatal disease, with most patients dying in renal failure.[1,2] We present a patient who had unusual biopsy findings in sinuses believed to be due to chronic sinusitis; however, development of renal failure and subsequent renal biopsy enabled us to diagnose and cure this potentially lethal disease.

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Acknowledgment: R. O. Lancet, M.D., AP&S Clinic, Terre Haute, for referring the patient to S. M. Yum, M.D., Department of Pathology, Indiana University Medical Center, Indianapolis, for interpretation of renal biopsy.

Case Report

A 66-year-old man with a history of essential hypertension was admitted to Union Hospital in November 1978 with a history of cough, lethargy, confusion, swelling of legs, and arthralgia of one week duration. The patient also had evening fever, maxillary sinusitis, and weakness for four months.

One month prior to this admission, maxillary sinus biopsy showed a heavy infiltrate of lymphocytes, eosinophils, and plasma cells with proliferation of fibroblasts, and areas of calcification, consistent with chronic sinusitis. No areas of necrosis or granulomas were seen.

The patient was initially treated with ampicillin and subsequently with steroids for possible temporal arteritis without any clinical improvement. At that time, the patient's urinalysis, blood urea nitrogen (BUN), and creatinine, complete blood count (CBC) were normal.

Physical examination on the present admission showed B/P 150/90, 2+ pedal edema, normal cardiovascular examination except for S4 gallop, and a liver 5 cm below costal margin. Neurological examination, except for a confusional state, was unremarkable.

Laboratory investigations showed WBC 3.1 x 10^3/cmm., Hb 7.7 gm/dl, normal differential and platelet count, sed rate 60 mm/hr, BUN 100 mg/dl., creatinine 6.8 mg/dl. Urinalysis showed 4+ protein, 4+ blood, Sp. gr 1010, many RBCs, and few granular casts.

The following tests were normal or negative: Direct Coomb's Test, ANA, RA Latex, Cryoglobulin, Streptozyme, Complement (C_3 and C_4), blood cultures, CEA, gallium scan, lung scan, brain scan, thyroid profile (T_3U, T_4), retrograde pyelogram, IVP, and upper GI. Serum protein electrophoresis showed total protein 5.1 gm/dl, albumin 2.6 gm/dl, and hypergammaglobulinemia without any gamma spike. The 24-hour urine contained 5 gm of protein. Serum immunodiffusion showed IgG 900 mg/dl (N 1027-1469), IgM 40 mg/dl (N 114-222), IgA 325 mg/dl (N 58-115). Only IgA was high.

The patient was initially treated with peritoneal dialysis, and then had a percutaneous renal biopsy.

Renal Biopsy: Light microscopy: Seven glomeruli were examined. Three showed large crescents and segmental, necrotizing, proliferative lesions with some interstitial edema and focal chronic inflammation. *Figure.* No granulomatous lesions or vasculitis were found. Immunofluorescence showed a few non-specific C3 deposits in hilar axis and arterial walls. Electronmicroscopy examination failed to reveal any dense deposits.

After renal biopsy, the patient was treated with IV Methyl Prednisolone 1 gm daily x 3 doses, IV Cytoxan 200 mg/daily followed by Prednisone 60 mg



Renal biopsy microscopy: Three glomeruli showing different stages of changes, including segmental necrotizing proliferative lesion and large crescent. There is also interstitial edema and focal chronic mononuclear cell infiltration.

POQ daily, and Cytoxan 50 mg-100 mg P.O. depending on the WBC and platelet count. Prednisone gradually was reduced and dosage was changed to 5 mg on alternate days. Prednisone and Cytoxan were continued until 20 months after diagnosis.

The patient's BUN, creatinine, and sedimentation rate became stable at eight weeks and remained stable after discontinuation of treatment. Thirty-three months after initial presentation, the patient's BUN was 28 mg/dl., creatinine 1.5 mg/dl., sedimentation rate 26 mm/hr, and Hct 37.5% with normal WBC and platelet count. Thirteen months following discontinuance of Cytoxan and Prednisone, the patient remained asymptomatic with normal urinalysis and stable BUN and creatinine.

Discussion

Our patient manifested many of the clinical and pathological features of a variety of disorders characterized by chronic granulomas, chronic infections or inflammatory vasculitis. The differential diagnosis in our patient included hypersensitivity vasculitis, collagen vascular disease, infectious granulomatous disease (e.g., tuberculosis, sarcoidosis, neoplasm accompanied by a granulomatous or vasculitis response).

Our case also demonstrated that no laboratory or pathological feature taken alone is diagnostic of W.G.; however, when these findings are considered together, one can establish a diagnosis of W.G.

The typical laboratory findings in W.G. are normochromic anemia, leucocytosis, elevated erythrocytic sedimentation rate (ESR), hypergammaglobulnemia (particularly IgA), normal serum complement, negative antinuclear antibody and the absence of L.E. cells.[1,2] Since the laboratory features are nonspecific, definite diagnosis can be established only by tissue biopsy.

Initially, our patient's illness suggested a tumor of the upper respiratory tract, temporal arteritis, chronic sinusitis, and allergic granulomatosis. The biopsies of sinuses were nondiagnostic. Subsequent renal failure and proteinuria prompted us to do a renal biopsy and make a definite diagnosis in conjunction with the clinical features.

The clinical features in our case indicate patients with suspected W.G. may need multiple organ biopsy.[1,2,4] Urinary findings usually are of acute glomerulonephritic type with proteinuria, hematuria, and varieties of casts.[1,2] The renal lesions histologically usually are focal and segmental in nature, with highly variable severity and occasionally accompanied by necrosis and vasculitis.[2] Renal biopsy is important not only for diagnosis to determine the extent of W.G., but also to rule out other cases of pulmonary-renal syndrome (Goodpasture's Syndrome, polyarteritis nodosa, post infectious glomerulonephritis).[2,3,4]

Summary

W.G. is presumed to be secondary to autoimmunity of unknown etiology. The nature of the antigen is speculative and possibilities mentioned are exogenous or environmental stimuli, microorganisms from the upper respiratory tract, and endogenous antigen or altered self antigen stimulating auto-immunity.[1,2]

Favorable although temporary response after steroid and dramatic remission after cytotoxic drugs also suggests this disease to be of hypersensitivity or allergic in nature.[1,2] Before the use of cytotoxic drugs, generalized W.G. was considered to be fatal with mean survival of four-five months.[1,2] The effect of a steroid and Cytoxan is quite evident in our patient. Although appropriate duration of treatment is still uncertain, tapering and discontinuation of drugs may be attempted if the disease is inactive for one year (normal sedimentation rate and urinalysis).[2]

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Sunlight and Skin



JERE D. GUIN, M.D.
Kokomo

HOW MANY OF our friends, neighbors, patients, and even family members have had a reaction to the sun in the spring or perhaps on a trip to Florida? The condition, known to the laity as "sun poisoning," is more properly termed polymorphic light-sensitive eruption (PMLE), and it has four distinct forms: 1) plaque-like type (the most common); 2) contact eczematous type; 3) papular and prurigo-like type (mostly on the external arms and pruritic); and 4) erythematous type or erythema solare perstans.[1] The incidence of PMLE is high. We obtained questionnaire data from two groups of student nurses, suggesting as many as 25% had a previous history.

Photocontact dermatitis also can be caused by sensitivity to light together with a wide variety of photosensitizing agents, and this can progress to a more vicious condition, the persistent light eruption. This extreme form of light sensitivity, found mainly in elderly males, has been associated with photocontact allergy to germicides in soaps,[2,3] plant oleoresins,[4-6] perfumes [7,8] and other materials. When the histologic picture is pseudolymphomatous the term actinic reticuloid[9] is sometimes used. Some victims are so sun-sensitive that they cannot tolerate a minute of direct sunlight, and some even react to fluorescent light. This condition is much less common since salicylanilides have been removed from soaps, but a common perfume ingredient has now been reported to also cause this.[7,8]

Most photoreactions are due to ultraviolet light that is shorter in wavelength (greater in photon energy) than visible light. Ultraviolet light is usually subdivided into three bands: UVA (320-400 nanometers) containing "black light" and where most photoallergic reactions occur, UVB (290-320 nm) where sunburn rays are found, and UVC (Under 290 nm) which contains germicidal wavelengths.

The skin's main protection from the sunburn spectrum under 300 nm is from the thickness of the epidermis and the amount of pigment present (melanization), whereas the attenuation of long ultraviolet (320-400 nm) and the visible light range (400-700 nm) is primarily by melanin pigmentation.[10] Blood chromophores, hemoglobin, oxyhemoglobin, and bilirubin influence dermal absorption of the longer wavelengths (greater than 320 nm), but scattering by collagen fibers determines the depth to which these penetrate and will alter the resultant skin color.

Trimethylpsoralen and 8-methoxypsoralen, used to treat psoriasis and vitiligo, are photoreactive in the longer UVB and shorter UVA (313-335 nm). Longer UVA up to 380 nm is 10-20 times less effective,[11] but there is more of it. Salicylanilide and bithionol, germicides formerly in soaps and other products, are reactive from 370-330 nm and some persistent light reactors are up to 35 times as sensitive as controls from the lowest UV up to 546 nm in the visible range.[11] Reaction by patients with PMLE is generally in the normal range, but Hoelzke *et al*[12] found that very large doses of UVA exposure usually will reproduce that condition. Persons with both discoid and disseminated discoid lupus erythematosus also have reactions that are within the normal range. However, these persist for abnormally long periods of time.[11] This perhaps represents a Koebner phenomenon, i.e., lesions appear in areas of trauma. In a future issue we shall consider some immunologic alterations caused by light.

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Aside from enabling patients to fall asleep more quickly and sleep longer, Dalmane seldom causes morning hangover. Most Dalmane patients feel alert and refreshed when they awaken. In 53 paired-night clinical studies comparing Dalmane and placebo in 2010 insomniac patients with a variety of secondary diagnoses, most Dalmane patients awakened more alert and refreshed, and less groggy and drowsy, than on nights when they had taken only placebo.[1] In a double-blind crossover study of 42 patients in private practice, approximately three t as many patients reported feeling refreshed and alert awakening after a night on Dalmane (flurazepam/Rc compared to placebo nights.[2] This difference was hig significant ($p<0.001$). And a retrospective study of hospitalized patients who received Dalmane revealed a 3.1% incidence of side effects.[3]

While residual effects from Dalmane therapy ar infrequent, patients should be cautioned about drinki alcohol, driving or operating hazardous machinery af ingesting the drug.

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Over 2000 clinical trials involving more than 10,000 patients have shown that Dalmane patients f asleep sooner, sleep longer and experience fewer nocti awakenings.[4] The safety and efficacy of Dalmane hav been demonstrated in medical and surgical hospitalized patients, in patients seen in office practice and in elder patients.[5-8] Since the risk of oversedation, dizziness, co

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on and/or ataxia increases with larger doses in the elder-
, it is recommended that the dosage be limited to 15 mg.

Moreover, the efficacy and safety of Dalmane for the
eatment of insomnia have been demonstrated in thou-
nds of patients with a variety of primary medical condi-
ons, including cardiovascular, neuropsychiatric, endocrine-
etabolic, gastrointestinal, genitourinary, respiratory and
usculoskeletal disorders.[1] Dalmane (flurazepam HCl/Roche)
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ve to the drug.

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eported as a potential clinical problem with some hypnot-
cs.[9,10] However, this problem has not been reported with
Dalmane. In eight out of eight sleep laboratory studies,
here were no reports of rebound insomnia.[11] When you
rescribe Dalmane, you can be confident of efficacy that
nhances therapeutic progress. Your insomniac patients can
e assured of a restful night, night after night—a good start
or a good morning.

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Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

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CME QUIZ

Genetic Treatment

CONTINUED FROM PAGES 453-457

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. Which of the following diseases has been successfully treated by bone marrow allotransplantation?
   a. Sickle Cell
   b. Fabry Disease
   c. Down Syndrome
   d. Osteopetrosis

2. An example of a vitamin responsive metabolic disease is,
   a. B_{12} responsive methylmalonic acidemia
   b. C responsive argininemia
   c. D responsive hypophosphatasia
   d. Fragile X syndrome

3. The most common gene product therapy is for
   a. PKU
   b. Diabetes Mellitus
   c. Hypothyroidism
   d. Upper respiratory viruses

4. Substrate modification is used for treating
   a. PKU
   b. Diabetes Mellitus
   c. Hypothyroidism
   d. Sickle Cell

5. Why might allotransplantation not be considered?
   a. Expense
   b. Graft versus host
   c. Presence of underlying genetic disease
   d. Inadequate animal studies

6. Which is not a benefit of recombinant-DNA technology?
   a. Large supply of purified human gene product
   b. Improved diagnosis, both pre- and post-natal
   c. Improved treatment of metabolic disease
   d. Treatment of chromosomal defects

7. The problems with enzyme replacement therapy do not include
   a. Inhibition of enzyme synthesis
   b. Enzyme survival and targeting
   c. Impermeability of the blood brain barrier
   d. Deficiency of pure human enzyme

8. Enzyme inhibition is used to treat
   a. PKU
   b. Gout
   c. Hypothyroidism
   d. Methylmalonic acidemia

9. Which form of genetic therapy is truly curative, rather than supportive?
   a. Substrate manipulation
   b. Allotransplantation
   c. Enzyme replacement
   d. Gene replacement

10. The introduction of genetic material by viral "infection" is called
    a. Transposition
    b. Ligation
    c. Transduction
    d. Endonucleation

June CME Quiz Answers

Following are the answers to the CME quiz that appeared in the June 1982 issue of THE JOURNAL: "Management of Adult Osteomyelitis," by Robert A. Colyer, M.D.

1. b	6. d
2. c	7. a
3. d	8. c
4. d	9. b
5. b	10. a

Answer sheet for Quiz: (Genetic Treatment . . .)

1. a b c d	6. a b c d
2. a b c d	7. a b c d
3. a b c d	8. a b c d
4. a b c d	9. a b c d
5. a b c d	10. a b c d

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

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Signature

To be eligible for this month's quiz, send your completed, signed application before Aug. 10, 1982 to the address appearing at the top of this page.

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PUBLIC HEALTH NOTES

Ambulatory Outpatient Surgical Centers

Today, more emphasis is being placed upon provision of ambulatory care services of all types including the performance of certain surgical procedures on an outpatient basis. Over the years, physicians have performed minor surgical procedures in their offices with good results and satisfied patients. Many patients prefer this type of personalized care and are demanding that this service once again be provided.

Some health professionals believe that many surgical procedures on a selected basis may be done at a lower cost and with equal or better results in an ambulatory outpatient surgical center.

At this time, we see that specialized physicians are joining together to establish centers in some of the more populated areas. The state now has five nonhospital-based, licensed ambulatory outpatient surgical centers: two in Fort Wayne, two in Indianapolis, and one in Merrillville.

Hospitals, too, have expanded their outpatient areas to set up ambulatory surgical units in trying to meet the demand. The patient who desires ambulatory care is screened by the physician to find out if his/her physical condition is such that it is appropriate for surgery on an outpatient basis.

In 1972, the hospital licensing law was amended to include licensure of ambulatory outpatient surgical centers. This amendment was supported by a group of physicians who felt that this service should be sponsored by qualified physicians and done in modern sanitary facilities that meet minimum operational standards to protect the public who use the facility. The law requires these centers to be licensed by the Indiana State Board of Health upon the recommendation of the Indiana Hospital Licensing Council.

In the law, namely IC 16-10-1, Section 6(b), an ambulatory outpatient surgical center is defined as a public or private institution which is established, equipped, and operated primarily for the purpose of performing surgical procedures and services. The law also contains some specifics on operation such as requiring utilization review of the facility's operation, transfer arrangement with a nearby hospital, physician supervision, and sets up minimal physical plant requirements as to postoperative recovery space and minimum number of operating rooms. The Hospital Licensing Council further promulgated regulations, 410 IAC 15-2, to define more specific operational standards for patient care which serve as the basis for licensure.

In applying for license, the law requires that the owner submit an application to the Council of forms prepared by the Council. Staff of the Indiana State Board of Health are required to visit the facility to obtain the necessary facts to report to the Council that the proposed operation will be in compliance with promulgated rules. The applicant also meets with the Council when the application is reviewed to afford direct communication between the applicant and the Council. The law further specifies if issuance of a license is approved, the license is issued to the applicant to operate the center for one year.

The law and regulations are available upon request from the Division of Hospital and Institutional Services to anyone interested in establishing a center. Staff is also available to assist persons in planning and/or operating these facilities in compliance with the law and regulations as these may apply to a particular proposed operational program.

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Cancer Study in Indiana to Begin Sept. 1

Cancer Prevention Study II

Protocol for the American Cancer Society's Study of Lifestyles and Environment

THE FIRST STUDY: 1959-72: Data for the first Cancer Prevention Study were gathered over a 13-year period from 1959-72, and helped us identify many factors related to cancer development. Information from study participants on personal habits and lifestyles, family and medical history, physical condition and workplace exposures provided invaluable information about the risks of cancer.

The study was instrumental in clarifying the link between smoking and cancer and in showing that obesity is related to certain cancers. Information from the study also provided data on risks for heart disease, stroke and other diseases. The landmark Surgeon General's Report on Smoking and Health was based in part on data from this American Cancer Society Study.

So far about 65 scientific papers have been published from data in the study. These include a recent report that cigarettes lower in tar and nicotine reduce but do not eliminate the risk of lung cancer.

Since the first Cancer Prevention Study, many changes have taken place in the way we live, the foods we eat, the products we use and in our home and workplace environments. In 1959 few people questioned the health effects of high fat or high cholesterol diets or the safety of many consumer products such as artificial sweeteners, coffee or hair dyes. Birth control pills and certain other drugs and medications were only starting to be widely used.

Since 1959, we have grown more aware of pollutants in our air and water and carcinogens in the workingplace. There also is increasing concern over the rising rates of cancer among blacks and the special health problems of minorities. A large study like this is the most effective way to find out which environmental factors increase cancer risk and need most control and which carry little or no risk.

Starting Sept. 1, more than 32,000 residents of 18 Indiana counties will be given the opportunity to participate in one of the largest epidemiologic research projects ever to be carried out in the United States. During September, 2,000 volunteers of the American Cancer Society will recruit Hoosiers to take part in Cancer Prevention Study II, the Society's second major research endeavor to learn how lifestyle and environmental factors influence cancer and other diseases. Nationwide, the study will involve more than a million American men and women from all racial, ethnic and economic groups.

Participants will be asked to complete and return questionnaires to research volunteers by the end of the second week in September. Then, once every other year for the next six years, these volunteers will keep track of the million study participants nationwide, and report to ACS headquarters on their status and whereabouts. When study participants die, health statisticians will be able to determine how their lifestyles affected their health by referring to information on the questionnaire.

Dr. Ray C. Smith, Jr., an Indianapolis surgeon and president of the Indiana Division of the American Cancer Society, says, "With this information provided by study participants in Indiana and all over the country, we hope to identify those factors that increase a person's chance of getting cancer, those that carry little or no risk and those that actually may help prevent cancer. We'll then be able to develop programs to help people follow lifestyles that minimize their cancer risk."

Though conceived along the lines of the first study, Cancer Prevention Study II will break new ground in areas of investigation. "CPS-II will be even more timely and more inclusive than CPS-I, and will respond directly to public anxieties and frustrations about our environment: what is carcinogenic and what is safe," said Dr. George Britton of Fort Wayne who will co-chair CPS-II in Indiana with Mary Lou Poe of Greenfield. Added Mrs. Poe: "Since our first study was conducted, changes have taken place in the way we live, the food we eat and the products we use. We're eager to see how changes have affected our health risks."

Study participants will complete a confidential four-page questionnaire about their working, living and eating habits. Covered will be such topics of concern as low-tar, low-nicotine cigarettes, birth control pills, coffee, hair dyes and saccharin. Also to be analyzed are air and water pollution, occupational exposures and low-level radiation.

"We're very grateful for the enormous contribution our volunteer researchers will make to Cancer Prevention Study II," Dr. Smith said. "Without their donating time and energy, the cost of undertaking such a comprehensive study would be prohibitively expensive." Were it not for the ACS volunteers' contribution of time and energy, the cost would be more than $100 million. Even so, CPS-II will cost some $13 million over the six years of data collection, for extra clerical work, computer services, record-keeping and analysis of many millions of facts and observations.

The 18 Indiana counties scheduled to participate are: Allen, Bartholomew, Clark, Delaware, Grant, Howard, Lake, LaPorte, Madison, Mishawaka (St. Joseph), Monroe, Marion, Porter, St. Joseph, Tippecanoe, Vigo, Vanderburgh and Wayne.

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AUXILIARY REPORT

Karen (Mrs. Robert M.) Schleinkofer
President, ISMA Auxiliary

Today, I would like to speak to you on a topic that I feel demands great attention, the need for increased voluntarism. But first, I would like to touch on an equally important topic. I know that there is a great need for the auxiliary to monitor medical legislation. Since this legislation will certainly affect the practice of medicine once it has been passed, we must learn of and act upon legislation that would be detrimental to medicine.

As we all know President Reagan's budget cuts have drastically decreased the amount of federal funds allocated to social service organizations and programs. This decrease in revenue will create a void that must be filled in order for these organizations to continue their work. With the unemployment rate still on the rise, recipients are forced to do more work with less money. For those programs which depended solely on federal funds, this task may prove to be impossible. Since outside funds cannot completely or even adequately fill this financial void, it will be up to countless volunteers to work together to keep these programs functioning. We must join these volunteers in their effort to rescue these failing programs.

To succeed in this difficult task of saving these organizations from extinction, we must exhibit a strong volunteer spirit. We need more than the spirit that manifests itself only in life-threatening situations. What we need are numerous persons volunteering their time and effort in ordinary and common situations. I feel that a few hours a week or, perhaps, a weekend a month is not too much to ask anyone to volunteer. It is vital that we support these programs in their daily service to those in need. If we cannot sustain these organizations during ordinary times, they might not be there when a disaster occurs, the time we need them most. This is why it is imperative that we volunteer now as an auxiliary and as individuals and not wait for a disaster or any other life-threatening situation to occur.

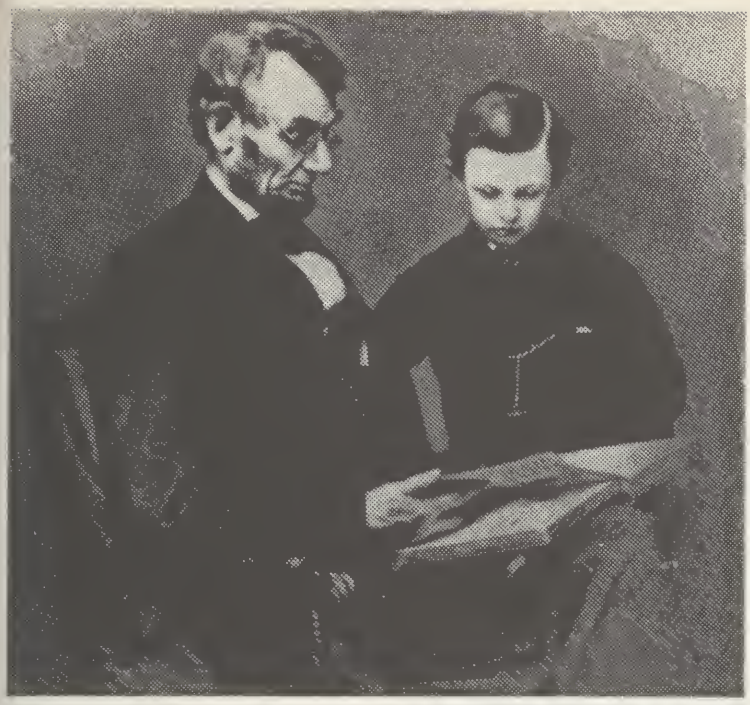
Many of you may be saying, "What can one person do?" The answer is simple. A person can let others benefit from his or her experience by volunteering his or her time, knowledge, and talents in the service of others. A person can act as a volunteer in a number of different ways. He or she can administer direct help such as teaching CPR or delivering hot meals to the elderly. A volunteer could also act as an intermediary by connecting various service programs with potential recipients of aid. He or she could also volunteer to work for a specific cause such as the American Cancer Society or the American Red Cross. Lastly, a volunteer could monitor service organizations or programs to ensure that they are functioning properly. This is the type of volunteer who would help the auxiliary monitor medical legislation.

However, one person cannot do it alone. All of us must work together to complete the task at hand, saving the service programs before they become non-existent. Just remember, without your individual help the job will be a little farther from being completed. You would be surprised at how much can be accomplished when individuals' resources are pooled together. Fort Wayne is a recent example of this. Its high school students combined their efforts along the weakened dikes and saved the city from the threatening flood waters.

"Why should you volunteer?" Although volunteers are rarely rewarded or even recognized for their unselfish efforts, they receive an inner satisfaction. These volunteers know that someone benefited from their actions. Also, they know that they did all that they could when they were needed. This revelation, itself, is an invaluable reward for anyone to receive.

As federal funds decrease, the need for active volunteers is rapidly increasing. Eventually, nearly all service programs will falter without an increase in volunteer activity. If we do not act now, some of these programs may soon become non-existent. We must act immediately before the need becomes too great and the situation goes beyond our control. We must always remember that a thousand eager volunteers cannot aid a program that has already become extinct.

In closing, I would like to ask that all of you attempt to devote more of your time and effort, as individuals and as an auxiliary, to volunteer work. If you are the type of person who never volunteers, I ask that you try it at least once. The satisfaction you will receive will be enough to make you continue. If you are the kind of person who constantly volunteers, I ask that you continue your work and attempt to persuade others to join you.



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For more information call or write:

James D. Townsend or Earl W. Williams
Professional Account Representatives
8900 Keystone Crossing, Suite 500
Indianapolis, Indiana 46240
(317) 844-3119 (IN)
1-800-428-7105 (Out of state)

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(317) 925-7545
1-800-382-1721

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FUTURE FILE

Nuclear Cardiology Seminar

The 7th Annual Nuclear Cardiology Symposium will be conducted at the Red Carpet Hotel, Milwaukee, Sept. 22 to 25. Physicians, nurses and allied health professionals may attend. Write or phone Sarah Aslakson, 465B WARF Bldg., 610 Walnut St., Madison, Wisc. 53706, (608) 263-2856.

Hospital Infection Control

"Infection Control for Community Hospitals" is the subject of a CME course to be conducted by the University of Wisconsin Sept. 16 at the University of Wisconsin Clinical Science Center in Madison. Write or phone Sarah Aslakson, 465B WARF Bldg., 610 Walnut St., Madison, Wisc. 53706, (608) 263-2856.

Internat'l College of Surgeons

"International Surgical Frontiers" will be the theme of the 1982 Annual Meeting of the United States Section, International College of Surgeons, Sept. 13 to 16 at the Resorts International Hotel, Atlantic City, N.J. For full information write to Mrs. Sally Cox, 1516 N. Lake Shore Drive, Chicago 60610.

Cincinnati CME Course

Bethesda Hospital in Cincinnati will conduct a CME course on "The Elderly Patient and the Hospital Experience" at the Terrace Hilton Hotel, Nov. 13. The course is rated at 6 hours Category 1 credit. Registration fee is $75. For further info write or call Thomas J. O'Connor, Bethesda Hospital, 619 Oak St., Cincinnati 45206, (513) 559-6337.

Medical Assistants Meeting

The American Association of Medical Assistants will hold its Annual Convention at the Shamrock Hilton Hotel in Houston, Sept. 20 to 24. More than 20 educational sessions will be held, geared to basic, intermediate and advanced skill levels. Full details are available from the AAMA's Executive Office at One East Wacker Drive, Suite 1210, Chicago 60601, (312) 944-2722.

Postgrad Medical Seminars

The International Medical Education Corporation will conduct postgraduate medical seminars approved for credit by the AMA and the AAFP on various clinical subjects as listed below. The registration fees are $260 for physicians and $160 for nurses and technicians.

"Arrhythmias and Cardiac Ischemia: Diagnosis and Management" with 13 hours credit will be held on July 30 and Aug. 1 at the Boyne, Mich., Mountain Resort and on Oct. 22 and 23 at Stouffers Inn in Cincinnati.

"ECG Interpretation and Arrhythmia Management" with 13 hours credit will be on July 30 and Aug. 1 at The Abbey in Lake Geneva, Wisc., and on Oct. 22 and 23 at the Hyatt Lincolnwood in Chicago.

"Cardiac Rehabilitation" will be held Nov. 5 and 6 at the Hyatt Lincolnwood in Chicago.

For full information, write the IMEC at 64 Inverness Drive East, Englewood, Colo. 80112, or call toll free (800) 525-8651.

Perlstein Lectureship

Lawrence A. Davis, M.D., clinical professor of radiology, will be the 1982 Distinguished John I. Perlstein Lecturer at 11 a.m., Sept. 13, in the Health Sciences Center Auditorium, Abraham Flexner Way, Louisville. His presentation will be "Pediatric Oncology: Then and Now."

The Perlstein lectureship is sponsored by the Department of Pediatrics, University of Louisville School of Medicine, and Kosair-Children's Hospital.

For further information, write Billy F. Andrews, M.D., Professor and Chairman, Department of Pediatrics, University of Louisville School of Medicine, Louisville, Ky. 40292.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Indiana University CME Course

The Indiana University School of Medicine will present a course for general surgeons on August 6 and the morning of August 7 at the Hilton-at-the-Circle in downtown Indianapolis.

Several guests will join our local faculty in providing a comprehensive and current review of biliary tact disease, emphasizing complicated forms of the disease and areas of controversy. Technical aspects of surgical treatment will be included. A syllabus will be provided.

For additional information, please call the Division of Continuing Medical Education (317) 264-8353.

Family Medicine Review

The Thirteenth Family Medicine Review—Session III will be held Oct. 31 to Nov. 5 at Hyatt Regency Hotel, Lexington, Ky. Category 1 credit. Reference is Frank R. Lemon, M.D., College of Medicine, Lexington, Ky. 40536.

Common Cancer Problems

"Common Cancer Problems for Primary Physicians" will be presented Saturday, Sept. 18, at the Parkview Oncology Center, Fort Wayne.

The meeting has been accredited for 5½ AMA Category 1 hours and 5½ AAFP Category 1 hours. The registration fee is $25 for physicians and $10 for residents and other interested medical personnel.

Contact Robert Rankin, Administrative Director, Parkview Oncology Center, 2500 E. State Blvd., Fort Wayne, Ind. 46805. Tel: (219) 482-9681.

Seriously Ill Child

"Care of the Seriously Ill Child" will be the subject of the 10th Annual Fall Pediatric Surgery-Pediatrics Symposium sponsored by the Indiana University School of Medicine. It will be held at the Indianapolis Atkinson Hotel, Sept. 29-30.

Contact Jay L. Grosfeld, M.D., Surgeon-in-Chief, Riley Hospital, 1100 W. Michigan St., Indianapolis 46223, (317) 264-4681, or Joni Downs at (317) 264-8353.

health issues of the 80's

These reports bring you information on what the AMA is doing, on behalf of the profession and the public, to influence decisions that will affect health care in the next decade and beyond.

the new federalism and medicine

The fate of President Reagan's "new federalism" proposal, which would shift programs between federal government and the states, is yet to be decided. And only general plans are known so far. Legislation to accomplish the program responsibility shifts is still to be drafted, and officials at the White House and the National Governors Association have reportedly reached an impasse in negotiations for the swap. But the Administration can be expected to continue pressing for action on the proposal, and Presidential Spokesman Larry Speakes has indicated a compromise may yet be reached.

A key component of the "new federalism" is moving financial responsibility for the Medicaid program from the states to the federal government in 1984. At the same time, under the President's proposal, states would accept responsibility for administration and funding of the Aid to Families of Dependent Children (AFDC) and food stamp programs.

While the federal Office of Management and Budget estimates that states, overall, would come out ahead in Fiscal Year 1984, the Congressional Budget Office figures show states would have a net loss in the exchange. Both estimates for individual states, however, show some very large gain or loss figures. In any case, future economic conditions may affect the accuracy of the estimates.

A second part of the federalism initiative calls for returning responsibility for 124 categorical grant programs, including some health programs, back to the states—this is the "turnback" provision. These programs are estimated to cost $30.2 billion in FY1984 (assuming about $5 billion in FY1983 cuts).

To finance the program turnback and equalize gains and losses among states, a federalism trust fund would be established. In FY1984, the fund of $28 million would come from windfall profits taxes ($16.7 billion) and federal excise taxes ($11.3 billion) on gasoline, tobacco, alcohol, and telephone services.

Between 1984 and 1987, states could choose to take the funds they would have received under the 124 categorical programs, either through the same categorical structure or without the categorical restrictions (similar to revenue sharing). In FY1988, these grants would end, and the trust fund would decrease by 25 percent each year. States would then have to raise taxes or cut program budgets accordingly.

Some additional features of the proposal have been announced, but many details are missing. Many questions are unanswered, also. Particularly interesting to physicians will be resolution of such questions as: Will the federal government equalize the state-by-state differences in Medicaid eligibility and benefits? If so, how? Will states be required to continue provision of services at the same level to all recipients now eligible for AFDC and food stamps? Will the initial trust funds be sufficient? Will states be able to maintain quality and quantity of various program services as trust funds are phased out?

We, the physicians of America, must continue our advocacy of high quality medical care for all. Working together, we must ensure that the three "A's" of good health programs—availability, accessibility, and acceptability—are retained. At the national level, the AMA will continue to analyze the proposal and details of it as they are developed. The effects of "new federalism" on health care programs in the future could be vitally important.

Such leadership requires your support. The larger our membership, (now nearly 240,000) the greater our influence and our strength as the only representative for all of medicine. **For details on how to join, contact your state or county medical society or the Division of Membership, American Medical Association, 535 North Dearborn, Chicago, Illinois 60610, (312) 751-6196 collect.**

AMA
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Bankers Do Not Play Monopoly

Business-Financial Advice for Physicians

RONALD R. DICKINSON
Noblesville, Ind.

REMEMBER THE LAST time you played a game of Monopoly? You selected an object, rolled the dice, moved the object, and hoped you would land where you could buy a property! And if you did not have enough money, you borrowed from the bank. Right? Well, unfortunately too many doctors today are trying to deal with their local lending institutions in that same fashion. In today's tight money market and high interest rates, lenders do not need to play Monopoly even with doctors. The typical institution today does not take chances on loaning money to anyone—they don't need to!

In calling on banks and other lending institutions with and for doctors, I have found that the policy of loaning money to individuals is geared to how well they repay their loans and other bills. The day of having a good financial statement is not adequate to acquire money. You must have a good track record with past accounts or the lending institutions are not nearly as interested in you.

For years, most doctors have been able to walk into lending institutions and have a carte blanc regarding money. Unfortunately, this has created financial nightmares for many physicians lately because of the high interest rates. Many doctors are faced with such large loans that paying the interest is about all they can do. And the lending institutions are faced with answering to the board of directors, the bank auditors, and the laws pertaining to the repayment of money. Therefore, acquiring money has become just about as much of a selling effort for doctors as it is for the average person.

If you are needing money to open a practice, build a building, buy a home, or get into some investment, you should consider following some of the basic guidelines laid out below.

First, be prepared! Know what you are going to do with the money, and how you are going to pay it back. Once you have worked this out for yourself, then you will be able to sell the idea more convincingly to others. Next, prepare something that shows the lending institutions you have put thought and effort into your plans.

Finally, present your story with confidence and authority and watch the person on the other side of the desk light up with excitement and amazement at your organized presentation.

In making your presentation, purchase a nice leather type 3 ring binder to place the information in.

On the first page put the words "Loan Proposal Prepared for_____ Requested by: Your Name and Address"

On page two place the table of contents in the following order:

1. Purpose of Loan
2. Use of Funds
3. Description of Practice

Mr. Dickinson is president of Simplified Systems, Inc., Noblesville. He also is state director of Physicians Planning Service, Indiana; state manager of the National Association of Professions; and an instructor for the Continuing Education of CPAs.

Sample	Pro-Forma			Income/Expenses for Dr. Doing Good									
Expenditures	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	Totals
Rent	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	13,200
Telephone	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Salaries	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	36,000
Supplies	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Postage	50		50		50		50		50		50		300
Printing	150					150							300
Advertising	25	25	25	25	25	25	25	25	25	25	25	25	300
Insurance			2500			500					500		3,500
Bank Notes	300	300	300	300	300	300	300	300	300	300	300	300	3,600
Interest			150			150			150			150	600
Dues	500						250						750
Subscription			20							80			100
Licenses					100								100
Legal	100					100							200
Accounting	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Lease Pmt.	300	300	300	300	300	300	300	300	300	300	300	300	3,600
Utilities	120	120	120	140	130	180	180	180	140	120	120	120	1,720
Meetings			400							600			1,000
Taxes	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	18,000
Mis.	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Draw	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	60,000
Totals	12745	11645	15465	11965	12155	12905	12305	12005	12165	12625	12495	12095	150,470
Projected Income	14000	9045	15000	16000	16000	13000	15000	16000	16165	17000	17000	13895	177,105
+ or -	+1255	-3600	-465	+4035	+3845	+ 95	2695	+3995	+4000	+4375	+4505	+1800	+26,635

4. Description of Profession
5. Market Analysis
6. Fee Schedule
7. Pro-Forma
8. Personal Financial Statement
9. Resume
10. Copy of License
11. Tax Returns Past 2 Years

Let's look at each item and why it is important to the lending institution.

1. **Purpose of loan:** Write a letter explaining in detail why you want to borrow the money and what it will be used for. Try to explain everything in just one page if at all possible.

2. **Use of Funds:** Show how you want the money paid out to you, and how you will be spending the money. The larger the loan request, the more specific, detailed information you will need to present.

3. **Description of Practice:** If you are going into practice or you are a young doctor, this will tell them how you work and build confidence that you are on top of your practice objectives.

4. **Description of Profession:** If you are a specialist, explain what you do. Most people are used to placing every doctor in the same category. This can be very important especially if you are in a position to earn an unusually large income.

5. **Market Analysis:** This is important if you are borrowing for an investment because it shows preparation and builds confidence in the security of the loan. If you are using money to start a practice, then an analysis of the area and the need for you in the area will be helpful for the institution as well as yourself. You can acquire some of this information from the Chamber of Commerce, the State and National Medical Association, and from talking to other doctors in the area.

6. **Fee Schedule:** This is only used if you are going into practice or are a new doctor in the area. It gives more credibility to the pro-forma and the repayment abilities.

7. **Pro-Forma:** A must if you are building anything because it shows cash flow potential. It is also a must if you are going into practice because it builds a plan of when you may begin to generate cash for repayment. A sample is illustrated but you should try to carry this out for 24 months.

8. **Personal Financial Statement:** All lending institutions require this to be completed.

9. **Resume:** Good public relations with lending institutions because it gives information on facts other than you are a doctor.

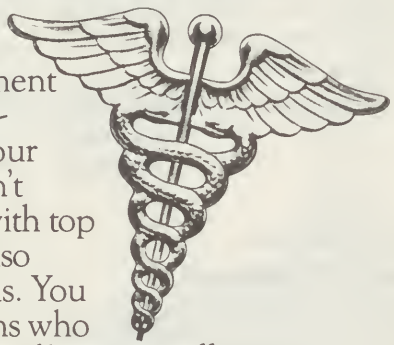
10. **Copy of License:** As a new or going into practice doctor it shows pride and proof that you are a doctor.

11. **Copies of Tax Returns:** The real proof that you will find all institutions will probably ask for, so beat them to it.

In closing, I know this sounds like a lot of work, but I can assure you the time you spend preparing your **loan proposal request** will be as rewarding to you as it will be to the lending institution. A final tip would be to always start at the top. If you are in a small community, ask for the president.

If you are in a large city start at the main location rather than a branch, because most branch managers do not have the authority to make large financial decisions. In each case you will probably talk to someone with more authority than if you just walk in someplace and say you want to borrow some money.

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BOOK REVIEWS

Emergency Guide to Pediatric Arrest

Suzanne Vokes, R.N. and Paul Hartunian, EMT-Paramedic. Copyright 1981, Tri-Med Press, Montclair, N.J. Pocket-sized manual, softcover, $5.95.

This is a pamphlet of about 45 pages (unnumbered), 4x5½ inches, soft cover, with spiral binding to open flat. "Tri-Med" is noted on a letter from Paul Hartunian as a "Division of N.J. Institute of Emergency Medical Training, Inc."

Apparently, no doctor of medicine has had direct supervision of the contents of this "book," which hardly lives up to the title of a guide. It is no more than a compendium of drug dosages, ET tube sizes, and defibrillator settings according to the weight of the patient, given in minimum to maximum ranges, all precalculated, in stages from 3 kg. to 40 kg. The same list is given (for each age-weight combination) of seven drugs, in the same order, but with no guide whatsoever to particular indications for each drug.

To prevent error in quick reading under urgent conditions, alternate lines of type are black and red, but to be really useful the pages should all be tabbed for ready reference, as the loose-leaf pages tend to stick together. The pamphlet is apparently offset printed from typewritten material.

Alexander W. Cavins, M.D.
Terre Haute
Gynecology

Current Pediatric Diagnosis & Treatment

7th Edition, by C. Henry Kempe, M.D., H. K. Silver, M.D., and D. O'Brien, M.D. Copyright 1982, Lange Medical Publications, Los Altos, Calif. 1,106 pages, softcover, $26.

The title well states its mission to provide a resource, as well as a current reference, for all child health professionals, be they students, residents, or practitioners of family medicine. Significantly, all the contributors are present or past members of the Pediatrics Department of the University of Colorado Health Sciences Center.

This reviewer has been conducted through that center, and was enormously impressed by the dedication of the participants.

Revising a book every two years involves an enormous amount of review and selection. So it was with this edition. The eminently qualified authors have noted substantial changes in the care of young people, covering a wide spectrum of changes. As the authors add, "We grow more dependent on the citation of useful recent references to the journal literature as a means of helping the reader keep the concepts current." In a word, the goal of the authors is to help the student.

So, for all child health professionals, whatever may be their field, I recommend this book as current, succinct, and authoritative. The binding is sturdy. The illustrations are minimal but helpful.

W. D. Snively, Jr., M.D.
Evansville
Internal Medicine

Manual of Cardiac Surgery, Vol. II

Richard H. Egdahl, editor. Copyright 1981, Springer-Verlag New York, Inc. 347 pages, 130 color illustrations, hardcover, $125.

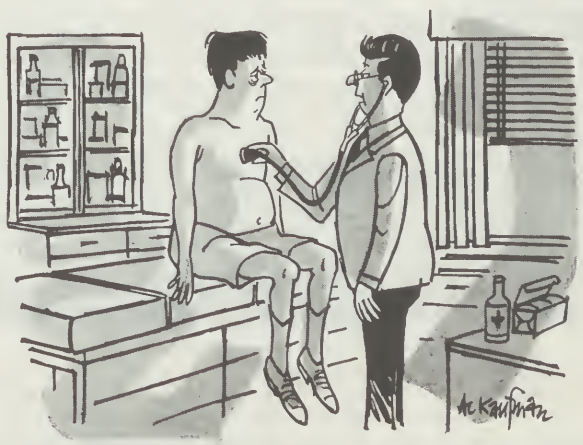
Besides its brilliant nucleus—the 130 full color illustrations—this book disperses superb textual wisdom. A fast paced precis of cardiac surgery for congenital diseases requiring cardio pulmonary bypass, post infarction aneurysms and septal defects, and surgery of the aortic and tricuspid valves thus emerges.

As in the previous volume, which described the remainder of cardiac surgery and perioperative care, the illustrations fix in time each emblematically significant operative moment. Not only the fundamentals, but also the most pertinent technical and intellectual details, are presented. For example, the current dissatisfaction with traditional indications for valve replacement in aortic regurgitation is expressed, complete with a discussion of new tests that can lead to better operative selection. More than 500 current references are reviewed.

In an admirable display of L' espirit Nouveau from a center that champions ball cage valves, tilting disc and tissue valves also receive favorable comment. Endlessly fertile about the vistas of congenital heart surgery, the chapter on transposition is unique among cardiac surgery atlases. Two inflow operations—the Mustard and the Senning—plus the newly evolving outflow correction repair, with its theoretical advantage of returning the left ventricle to the status of the systemic pumping chamber, are described *in extenso.*

This atlas stands high among the essential source materials about heart surgery.

Alan T. Marty, M.D.
Evansville
Cardio-Vascular Surgery



"I want you to give up wine, women, and song, at least till my bill is paid."

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BOOK REVIEWS

Cecil Textbook of Medicine

16th Edition, James B. Wyngaarden, M.D. and Lloyd H. Smith, Jr., M.D., editors. Copyright 1982, W. B. Saunders Company, Philadelphia. 2,354 pages, $65 (one volume); $75 (two volumes).

Dr. Beeson has retired, Dr. McDermott, to the great loss of all students of medicine, has died, and the editorial torch for this revered textbook has been passed to younger men. From its inception under Dr. Cecil in 1927, many physicians have regarded this textbook as the most authoritative single volume in internal medicine. For many of us, to open this book is to experience an aura akin to stepping into the library at Harvard. The task of new editors, conscious of the book's grand tradition, should be to maintain or improve upon the high standards of previous editions or, at least, to do no harm. How have they done?

Forty per cent of the authors are new to this edition, with San Francisco and Durham, the home bases of the new editors, being well represented among this group. Consequently, much of the text is fresh, representing new topics or rewritten old topics. An entirely new section on clinical pharmacology has been added. Oncology, immunology and environmental medicine receive more attention in this volume. New technologic advances, such as nuclear cardiology, are given space for the first time. An enlarging emphasis on molecular mechanisms is everywhere apparent, especially in the sections on metabolism, endocrinology and immunology. Prostaglandins and thromboxanes are discussed in a new chapter. Balancing the reductionist and technologic trend is new material on medical ethics and common problems in geriatrics.

Selective reading throughout the text suggests that the level of scholarship remains high. Brief annotations, a feature new to this edition, enhance the references, which commonly date to 1980. The very usable index has been expanded to obese proportions—cxlii pp!

The Hoosier community practitioner will quickly note what, from his perspective, may seem to be an odd allocation of space in the text. Some widely prescribed (rightly or wrongly) contemporary therapeutics, such as cephalosporin antibiotics and nonsteroidal antiinflammatory drugs, are barely mentioned, whereas West Nile fever and acatalasia are treated at some length. Disappointing is complete omission from discussion of enteral hyperalimentation, a technique of great clinical significance.

Some major redundancy, which is not necessarily bad, has been permitted. For example, except for a chapter on cardiopulmonary resuscitation, the entire section on critical care medicine repeats many topics such as respiratory failure, shock, renal failure and coagulopathies, which are discussed elsewhere in the text.

The aspects of this edition not measuring up to those of the past can be blamed on the publishers rather than the new editors. The binding is not as secure. The print size is smaller. The page size is larger. The color plates have been collected at the front of the book and also have been reproduced, quite ineffectively, in monochrome throughout the text. All these changes make for less convenient reading. The publishers also have demeaned Cecil, in this reviewer's opinion, by including it as Volume 3 of an ill-conceived project, the *International Textbook of Medicine,* an apparent marketing ploy.

If you wish to read about pneumococcal vaccination, chenodeoxycholic acid for treating gallstones, torsades des pointes, thromboxane A_2, nuclear magnetic resonance, Verapamil, endorphins, Legionellosis and a universe of more traditional medical subjects in one volume, read Cecil. Overall, the text has been successfully modernized while retaining the scholarly authority of previous editions.

Eric L. Dyer, M.D.
Bedford
Internal Medicine

Dell Publishing announces *The Family Medical Diary.* It contains record forms into which medical data such as immunizations, prescription drugs taken, allergies, x-rays, communicable diseases, pregnancies and OTC drug use may be entered. The author, B. D. Colen, is a medical reporter and writes a weekly syndicated health column. $7.95.

The Book Publishing Company has released *The Fertility Question,* by Margaret Nofziger. It is written for patients with fertility problems and includes information on causes of apparent infertility, reproductive physiology, basal temperature and timing. It includes illustrative examples and has a question-and-answer section.

The Franklin Institute Press has just published *Over 55: A Handbook on Health.* It has a foreword by Hugh Downs and 40 chapters written by 47 experts. The hardcover volume is intended not only for the aging population but also for clergy, social service workers, health personnel and others who deal professionally with the age group. 633 pages, $27.50.

AVI Publishing has released *Vitamin C in Health and Disease* by Tapan K. Basu, Ph.D., and C. J. Schorah, Ph.D. It is described as a new, valuable research tool in which assessments of an appropriate level of Vitamin C in humans are made. Suggestions are made concerning the maintenance levels of blood and tissue concentrations, and benefits and dangers of high dosage therapy. It is intended as an important reference work for clinicians, biochemists, dietitians, teachers and researchers in nutrition. $19.50.

Dell Publishing has a new paperback titled *Pediatric Guide to Drugs and Vitamins.* Written by Edward R. Brace and John P. Pacanowski, M.D., as a general reference book on pediatric drugs. It is recommended for parents of children whose pediatrician thinks the parents should know more about drugs. $6.95.

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NEWS NOTES

'Unapproved Uses' of Drugs

The *PMA Newsletter* of the Pharmaceutical Manufacturers Association notes that a recent issue of the FDA's *Drug Bulletin* contains an article entitled, "Use of Approved Drugs for Unlabeled Indications." It calls use of the term " 'unapproved uses' . . . to some extent, misleading."

The phrase, FDA says, "includes a variety of situations ranging from unstudied to thoroughly investigated drug uses. Valid new uses for drugs already on the market are often first discovered through serendipitous observations and therapeutic innovations, subsequently confirmed by well planned and executed clinical investigations.

"Before such advances can be added to the approved labeling, however, data substantiating the effectiveness of a new use or regimen must be submitted by the manufacturer to FDA for evaluation. This may take time and, without the initiative of the drug manufacturer whose product is involved, may never occur. For that reason, accepted medical practice often includes drug use that is not reflected in approved drug labeling."

Besides, the *Bulletin* notes, while the Food Drug & Cosmetic Act gives FDA control over the manufacturer's labeling and promotion of a drug, the manner in which a physician may use it is not limited by the Act.

Safety of Saccharin

An independent review of the National Cancer Institute's 1980 study on the human use of artificial sweeteners has concluded, "In the general study group, there was no evidence for an association between non-nutritive sweeteners (saccharin and cyclamate) and bladder cancer."

The review was conducted by Epidemiology Resources, Inc. The ERI review was published in the April issue of the *American Journal of Public Health.*

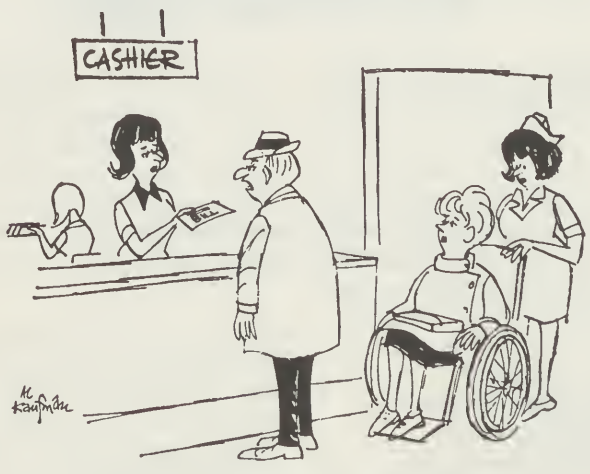
Abbott to Sponsor Hematin

Abbott Laboratories has accepted an FDA invitation to sponsor the "orphan drug" hematin for the treatment of hepatic porphyrias. Abbott's sponsorship of hematin reflects an industry-wide effort to identify drugs for rare diseases.

Fire Evacuation Film

"Evacuation of Medical Facilities" is a new training film for employees of hospitals and nursing homes. It has just been released by the National Fire Protection Association.

The film is available in 16mm and all video formats for $350. Write Publications Sales Division, Batterymarch Park, Quincy, Mass. 02269.



"Aren't you going to give me something to kill the pain first?"

Physician Advertising Dispute

The 4-4 vote of the U.S. Supreme Court in the Federal Trade Commission's dispute with the AMA over physician advertising is a "clear signal" that Congress will have to deal with the issue of FTC jurisdiction over professional associations, the AMA says.

The high court's decision left standing a Circuit Court of Appeals ruling that upheld the FTC order against the AMA.

In a statement to a congressional subcommittee, the AMA urged support for a bill that would place limitations on the actions and jurisdiction of the FTC, including its jurisdiction over state-regulated professions.

"Professional associations are not afraid of being subject to antitrust laws," the AMA told the subcommittee, but "clearly the courts provide a better forum for resolution of antitrust issues than an independent federal commission with hearings before an administrative law judge who is an employee of the commission."

Child Safety Exhibit

The "First Ride . . . . Safe Ride" motto of the child passenger safety message of the American Academy of Pediatrics is being carried to millions of people expected to attend the 1982 World's Fair in Knoxville. The "First Ride" exhibit will continue throughout the entire six months and is being staffed by volunteers from the AAP Tennessee Chapter, the Tennessee Highway Safety Patrol, the East Tennessee Children's Hospital, the University of Tennessee Hospital and others.

Viral Hepatitis Film

Abbott Laboratories' Hepatitis Information Center has a new motion picture for physicians, medical students and hospital continuing medical education programs on the differential diagnosis of viral hepatitis. The title is "Viral Hepatitis: Differential Diagnosis." It runs for 33 minutes. It is available on free loan in either 16mm film or ¾" videocassette formats. Write Abbott Audio-Visual Services, 708 N. Dearborn St., Chicago 60610.

Indiana Gains AMA Delegate

The Indiana State Medical Association will have six rather than five delegates at the 1982 session of the AMA House of Delegates.

The action is the result of new AMA membership-based allocation figures. Indiana is one of 10 state associations that will have more delegates this year. No state will lose a delegate.

New York will gain five delegates this year. Ohio will gain four. Besides Indiana, states gaining one delegate are California, Colorado, Florida, Illinois, Massachusetts, Texas and Virginia. The total number of state medical association delegates to the AMA will be 236.

ISMA delegates are Dr. George T. Lukemeyer of Indianapolis, Dr. Malcolm O. Scamahorn or Pittsboro, Dr. Everett E. Bickers of Floyds Knobs, Dr. Marvin E. Priddy of Fort Wayne, Dr. Peter R. Petrich of Attica, and Dr. Thomas C. Tyrrell of Calumet City.

HHS Hospital Warning

The Department of Health and Human Services has issued a warning to hospitals to emphasize that withholding treatment on the basis of handicaps might result in loss of federal funds.

John C. Render, general counsel of the Indiana Hospital Association, feels that the warning will have little effect on Indiana hospitals because no hospital gives medical treatment without appropriate consent of the patient or, in the case of a minor, consent of parents or guardian.

Auxiliary Contributes $1,500

The Vigo County Medical Auxiliary has donated $1,500 to benefit students at the Terre Haute Center for Medical Education at Indiana State University.

Mrs. Steven McDonald and Mrs. William Green, co-chairmen of the Auxiliary's AMA Education Research Foundation, presented the check to Dr. Alvin S. Levine, director of the Terre Haute Center, which is a regional campus of the Indiana University School of Medicine for first- and second-year medical studies. The funds are channeled through the I.U. School of Medicine Student Scholarship Fund.

AAP on Vaccine Safety

The American Academy of Pediatrics recently warned a Senate subcommittee that control of infectious diseases is threatened by reduction in federal funding for vaccine, by legal suits against health professionals and manufacturers for injury from vaccines, and by news media sensationalism.

Dr. Vincent Fulginiti, chairman of the AAP Committee on Infectious Diseases, emphasized that, while there are some serious complications associated with pertussis vaccine, the incidence of the same serious complications is many times higher in unimmunized children suffering from the actual disease.

Public Opinion on Advertising

A recent public opinion survey indicates that people perceive the professional who advertises as being more youthful, slightly more competent, more concerned with the client's welfare, and less expensive than the average practitioner.

The study, conducted by the Akron Business and Economic Review, also showed that people would like to see more advertising by professionals. The Reuben H. Donnelley Company, the nation's largest marketer of Yellow Pages advertising, recommends the Yellow Pages for such advertising and suggests that ads include the qualifications of the professional, the specific services offered, and office hours.

Donnelley has a brochure, "The Professional Who Advertises," available from Mr. Tibor Taraba, Reuben H. Donnelley, 825 Third Ave., New York, N.Y. 10022.

No Substitute for Blood

The American Blood Commission, which represents 38 national organizations that provide most of the nation's voluntary blood supply, is conducting a public information campaign on the subject of blood substitutes.

The Commission president says, "Although progress has been made in developing substitutes for human blood, they currently are available only for research purposes and not for routine transfusion."

The public should know that the limited success with "artificial blood" does not lessen the need for human blood which, due to increased use in major operative surgery, is increasing steadily. At best, the research substitutes will support life for only a few hours and will be used in emergencies until blood transfusions are available.



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NEWS NOTES

Here and There . . .

. . . **Dr. Alexander S. Williams** of Gary and **Dr. Robert K. McKechnie** of Jeffersonville have been appointed by Governor Robert Orr to the Sickle Cell Advisory Committee.

. . . **Dr. Charles W. Calhoun** of Seymour discussed blood pressure during a May meeting of the Brownstown Exchange Club.

. . . **Dr. John F. Ansbro** of Evansville has been re-elected president of the Vanderburgh County Heart Association.

. . . **Dr. Robert J. Steele,** an Indianapolis oncologist, was guest speaker for the May meeting of Families Facing Cancer.

. . . **Dr. W. Craig Spence** of Knightstown, a composer and pianist, performed his own piano sonata in G minor at the "Bartok to Broadway" concert in New Castle in May.

. . . **Dr. Stanley G. Reedy,** director of the Elkhart County Health Department, has been elected president of the Indiana Public Health Association.

. . . **Dr. William M. Wason,** an Elkhart rheumatologist, discussed arthritis during a May meeting in Michigan City sponsored by the LaPorte County Arthritis Foundation.

. . . **Dr. Virginia Meade Wagner,** a Speedway pediatrician, has been chosen "1982 Professional Woman of the Year" by four professional classified women's service clubs of Indianapolis.

. . . **Dr. Harold L. Ericson,** a Windfall family physician more than 40 years, has retired. He is a 1937 graduate of Indiana University School of Medicine.

. . . **Dr. Kenneth L. Nachtnebel** of Evansville has been elected president of the Deaconess Hospital medical staff; **Dr. Irvin L. Heimburger** was elected president-elect, and **Dr. William F. Johnson,** secretary-treasurer.

. . . **Dr. Edward L. Langston** of Flora has assumed the presidency of the Indiana Academy of Family Physicians.

. . . **Dr. Frederick R. Ridge Jr.** of Linton served as chairman of the scientific program for the annual assembly of the Indiana Academy of Family Physicians, held this spring at South Bend.

. . . **Dr. Thomas G. Lutz** of Evansville and **Dr. Howard Kays** of Indianapolis, oncologists, discussed "Cancer: What You Don't Know Can Hurt You" during an April public forum in Jasper.

. . . **Dr. Richard G. Huber** of Bedford was re-elected as speaker of the Congress of Delegates for 1983 during the annual meeting of the Indiana Academy of Family Physicians.

. . . **Dr. James M. Kirtley** of Crawfordsville and **Dr. Frank P. Lloyd** of Indianapolis each were presented an honorary doctor of laws degree during commencement exercises at Wabash College in May.

. . . **Dr. Ted L. Grayson** of Indianapolis discussed ostomy surgery during a May meeting of the Columbus chapter of the United Ostomy Association.

. . . **Dr. Robert W. Mouser** of Indianapolis is president-elect of the Indiana Academy of Family Physicians.

. . . **Dr. Wymond B. Wilson** of Mentone served as grand marshal of last month's Mentone Centennial Parade.

. . . **Dr. Donald A. Dian** of Bluffton was among several speakers who participated in an Adolescent Medicine Seminar at Caylor-Nickel Hospital, Bluffton, in June.

. . . **Dr. Frederick J. Ferlic** and **Dr. Michael A. Borkowski** of South Bend discussed rheumatoid arthritis during the annual community arthritis forum sponsored by the Arthritis Society of St. Joseph County.

Briggs Gets Scouting Award

Dr. Robert W. Briggs, Indianapolis, was one of 13 men and women, long associated with Scouting, who were honored at the recent biennial National Council meeting of the Boy Scouts of America by presentation of the Silver Buffalo Award.

Dr. Briggs received the Silver Beaver Award in 1972 for service in the local community and the Silver Antelope Award for similar work on the regional level. He entered Scouting as an Explorer post advisor in 1961 and has been on the National Executive Board since 1972.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Adler, Fred, Munster
Adye, Wallace M., Evansville
Allen, Donald R., Evansville
Basavaraja, Hiremat, Muncie
Batacan, George A., Michigan City
Brennan, William C., Highland
Brown, Gordon T., Indianapolis
Cabrera, Pelayo B., East Chicago
Campagna, Edward A., East Chicago
Chona, Alfred, East Chicago
Cox, Larry La Von, Elberfeld
Dahling, Fred W., New Haven
Ebbinghouse, Tom H., Richmond
Hermann, Harold W., Evansville
Hodel, Harry L., Indianapolis
Hull, Joel I., Chesterton
Lucas, Owen H., Chesterton
Mann, Richard E., Fort Wayne
Mohrman, Michael S., Fort Wayne
Nicely, Paulette G., Indianapolis
Raber, Robert M., Indianapolis
Rietman, H. Jerome, Evansville
Shelton, N. Philip, Vincennes
Smyrniotis, Fotios E., Marion
Thomas, Daniel D., Gary
Weiss, Robert M., New Albany
White, Charles F., Indianapolis

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OBITUARIES

Carl E. Dillman, M.D.

Dr. Dillman, 79, a retired Corydon general practitioner, died May 1 in Floyd Memorial Hospital, New Albany.

He earned the M.D. degree from the University of Louisville in 1933. He had practiced in Harrison County for 46 years.

Dr. Dillman served twice as president of the Harrison-Crawford County Medical Society. He also was an ISMA delegate in 1968 and in 1974.

Frank D. Hogle, M.D.

Dr. Hogle, 63, a Michigan City forensic psychiatrist died May 19 at St. Anthony Hospital, Michigan City.

He was a 1944 graduate of Indiana University School of Medicine and served with the U.S. Navy during World War II.

Dr. Hogle was a forensic psychiatrist for courts in St. Joseph, LaPorte, Lake, Porter and Starke counties. He was a Fellow of the American Psychiatric Association.

Alma L. Roby, M.D.

Dr. Roby, 61, a Jeffersonville pediatrician, died April 3 at Clark County Memorial Hospital, Jeffersonville.

He was a 1943 graduate of the University of Louisville School of Medicine and was an Army veteran of World War II and the Korean War. He held a commission (colonel) in the 100th Division, Army Reserve.

Dr. Roby, certified by the American Board of Pediatrics, was a member of the American Academy of Pediatrics.

Jack A. Moswin, M.D.

Dr. Moswin, 65, a Merrillville obstetrician and gynecologist, died April 23 at Northwestern Memorial Hospital, Chicago.

He was a 1940 graduate of the University of Illinois College of Medicine and was an Army veteran of World War II.

Dr. Moswin, who was certified by the American Board of Obstetrics and Gynecology, was a Fellow of the American College of Obstetricians and Gynecologists.

Emil W. Scheier, M.D.

Dr. Scheier, 86, a retired Indianapolis general practitioner, died May 20 in St. Francis Hospital, Beech Grove.

He was a 1930 graduate of Indiana University School of Medicine and was an Army veteran of World War I.

Dr. Scheier, who was enrolled in the ISMA Fifty Year Club in 1980, was on the staffs of Methodist, St. Vincent and St. Francis hospitals and was a charter member of the staff of Community Hospital, Indianapolis.

Lyman R. Pearson, M.D.

Dr. Pearson, 83, a retired Indianapolis proctologist, died May 8 in Clearwater, Fla.

He was a 1921 graduate of Indiana University School of Medicine.

Dr. Pearson, who retired 20 years ago, was a Fellow of the American Proctologic Society. He had been a member of the ISMA Fifty Year Club since 1971.

Harry A. Silvian, M.D.

Dr. Silvian, 72, a retired Whiting physician, died Feb. 24 at St. Anthony Hospital, Michigan City.

He was a 1933 graduate of Rush Medical College, Chicago.

Dr. Silvian was a member of the American Society of Abdominal Surgeons.

Donald G. Sturgis, M.D.

Dr. Sturgis, 63, a Sellersburg physician, died May 20 at Clark County Memorial Hospital, Jeffersonville.

He was a 1944 graduate of the University of Louisville School of Medicine and served with the U.S. Navy during World War II.

Dr. Sturgis was a Fellow of the American Academy of Family Physicians.

Cola K. Newsome, M.D.

Dr. Newsome, 55, an Evansville physician, died April 27 at Deaconess Hospital, Evansville.

He was a 1956 graduate of Meharry Medical College's School of Medicine, Nashville, Tenn., and was a veteran of World War II.

Dr. Newsome, active in community affairs, was instrumental in the early planning for desegregation of Evansville public schools. Most recently, he served as president of a group of local black business leaders working to develop an inner-city shopping center and housing development.

Mell B. Welborn, Sr., M.D.

Dr. Welborn, 74, a retired Evansville surgeon who founded the Welborn Clinic, died April 23 at Welborn Memorial Hospital, Evansville.

He was a 1931 graduate of Emory University School of Medicine, Atlanta. He retired in 1976.

Dr. Welborn, a Fellow of the American College of Surgeons, was a past president of the College's Indiana chapter. He also was a past president of Welborn Hospital's medical staff. The medical library at Welborn Hospital is named in his honor. He was enrolled in the ISMA Fifty Year Club last year.

Memorials: Indiana Medical Foundation

The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

Contributions made to the Foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for Federal estate and gift tax purposes.

The Foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

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John Twyman	James O. Ritchey, M.D.
Albert M. Donato, M.D.	Thomas A. Hanna, M.D.
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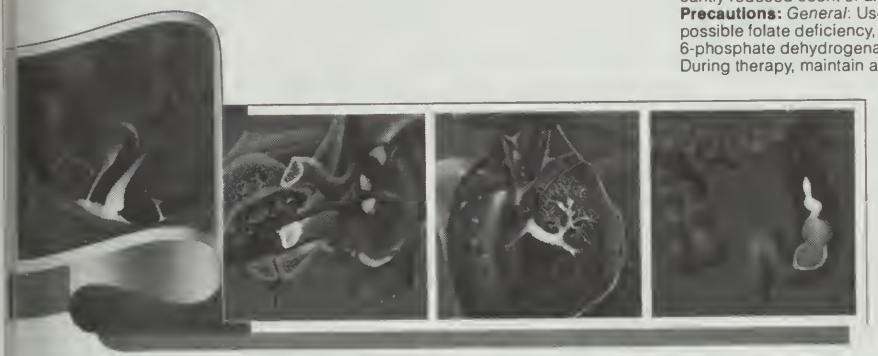
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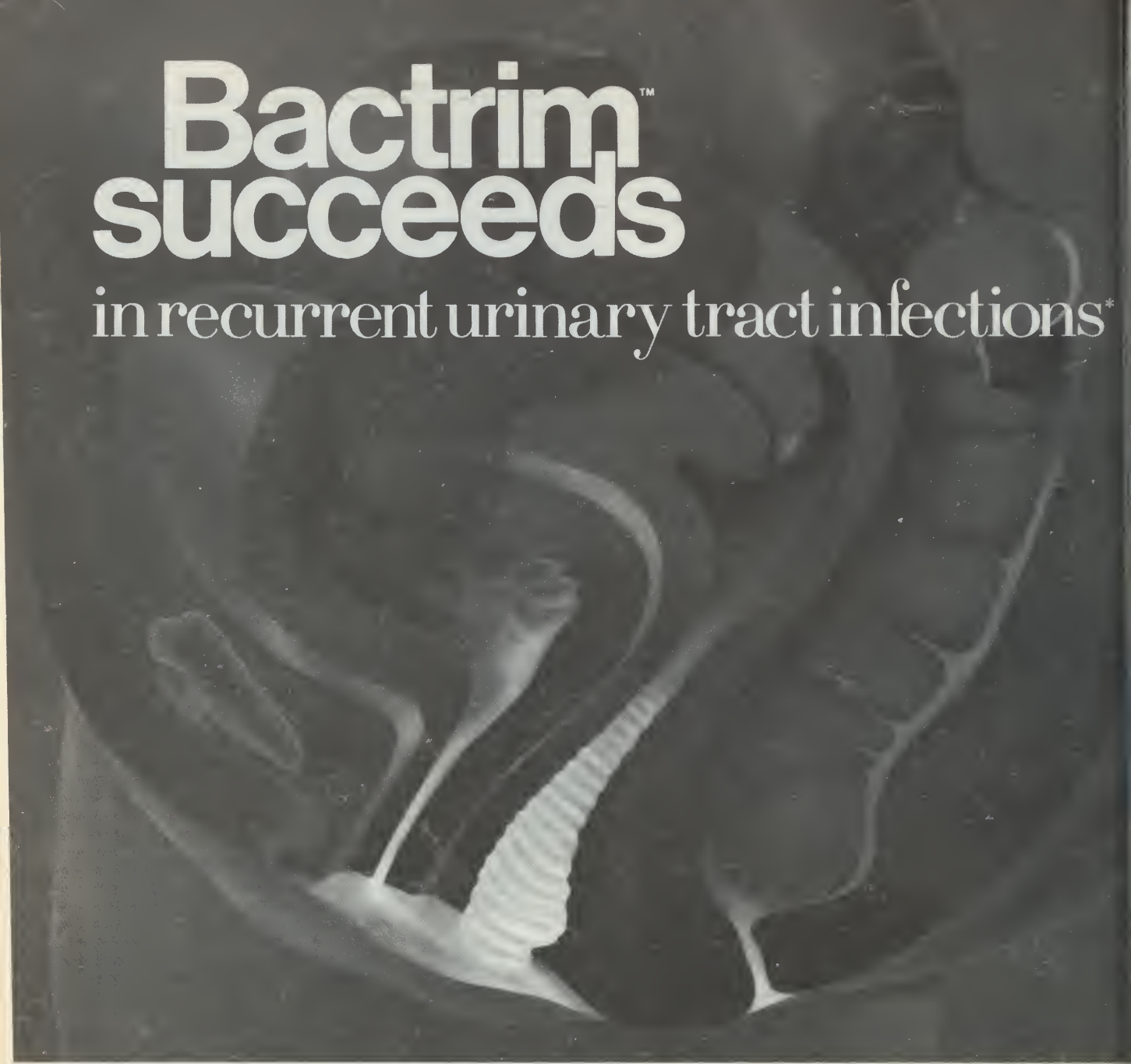
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1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

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SCHIZOPHRENIA

Inside: Schizophrenia—The Mental Health Problem That Costs the Nation $19.5 Billion Annually

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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

THE COST OF LIVING is going up, or, as a newspaper headline puts it: "LIVING COST SAILS TOWARD SKY AGAIN."

The time referred to is not the present, however, but rather 1910. The newspaper is *The Indianapolis Star* (May 5, page 1), which points an accusing finger at the offending culprits with a succinct statement in bold type: **"Bakers, doctors, and barbers join in melody and poor consumer dances to music."** Unfortunate coincident timing had resulted in all three groups announcing a price increase simultaneously.

In terms of dollars and cents, this meant that a penny was being added to the cost of a loaf of bread (from a nickel to six cents); the cost of a shave was going to increase from 10 to 15 cents, and the cost of a physician's house call was going to increase from $2 to $3.

The reason for increasing the price of bread was credited to the Indiana State Board of Health, which had decreed that, commencing July 1, 1910, all bread and bakery goods would be wrapped.

No reason was given for increasing the price of a shave. Most of the article was concerned with physicians' fees—". . . An increase from $2 to $3 a visit from Indianapolis physicians to sick people was the last prank of the high cost of living . . . Believing that the cost of maintaining an automobile, paying toll on two telephones, and paying added office rent, to say nothing of a general advance in other necessities for a physician to be such that the doctor cannot afford to make calls at the old price, the die has been cast and the additional fee will be charged . . . ."

When asked his opinion about the proposed increase, Dr. Allison P. Maxwell stated, "There has been no change in the price of a physician's visit for the last 34 years ("or since Indianapolis was a village" as expressed by Dr. Rebecca Rogers George), although the cost of maintaining an office in Indianapolis has more than doubled. I believe that the proposed advance will be all right. The high cost of living, coupled with the increased office expense, makes it very proper to ask for a raise in the price of visits."

Most physicians agreed, but Dr. Hannah M. Graham felt the proposed price increase too modest, and stated that "The proposed price is too low, taking into consideration the prices charged by other cities of the same population. Indianapolis doctors charge about one-half the price paid in other cities for their calls, while surgery is about one-tenth the cost in other places. A physician cannot charge less than $3 for a visit and live as he ought to. The doctor who objects to the price is playing to a cheap practice, and is to be pitied . . ."



Allison Maxwell

But some doctors did object. Dr. Wilbur Christian indicated that "The present charge seems sufficient, though a raise might be made for certain classes, without a great change in the present conditions. To make the order general would not be proper. Two dollars a call seems to me to be about right."

Dr. J. H. Bull's comments were more explosive. "I think the proposed changes exorbitant . . . . Most of the physicians, I believe, would rather give their services to the worthy, than to work a hardship on the poor . . ."

The era was one of the formation of trusts, and the proposed price increase was viewed by some as an effort on the part of physicians to form a trust among the medical profession. There were, however, about as many different views expressed on the subject, as there were physicians whose opinion was requested. Dr. J. Q. Davis said ". . . . It's too much . . . . they can never get it . . . . the cost of living is now at its zenith." Dr. D. W. Armistead was more resigned in his opinion. ". . . So many people never pay their doctor bills, that the charge made now gives little to the average physician."

Dr. Allison P. Maxwell (1848-1915), the first of the above-mentioned general practitioners, was also Dean of Indiana University School of Medicine at the time of this opinion survey. The year 1910 was also the year of the Flexnor Report, in which Indiana University School of Medicine was one of the few schools reported favorably. This tells us much about Dr. Maxwell.

WHAT'S NEW?

Flexguide announces a new intubation guide for assistance in intubating the larynx in cases in which anatomical problems interfere with complete visualization and when substantial traction is undesirable. The Flexguide's distal tip can be flexed by manipulating a thumb ring in its handle. It is first inserted through an intratracheal tube, inserted into the larynx by using the thumb ring to flex the tip in the desired direction. The intratracheal tube is advanced over the guide into the trachea. The Flexguide is then removed.

"Thrombin Clotting Time", a reagent kit designed to standardize thrombin time testing, has been introduced by Bio/Data. Thrombin time is a valuable screening test for evaluation of disseminated intravascular coagulation (DIC), heparin therapy and fibrinogen abnormalities. It is gaining acceptance as a rapid means of monitoring streptokinase therapy.

Takeda Chemical Industries of Japan announces the discovery of a new antidiabetes compound. It is designated ADD-3878. The compound enhances insulin sensitivity and responsiveness in tissues and normalizes pancreatic islet beta cell function in obese-hyperglycemic animal models. It is recommended for treatment of non-insulin-dependent type II diabetes. Abbott Laboratories will develop plans for the drug in the United States, Canada and Latin America. Upjohn also has rights for the compound, and will develop and market the drug worldwide with Takeda and in the U.S. with Abbott.

The Candle Corporation, a computer software company has formed a new division to develop computer programs for "office automation/office of the future" field. After the University of Pennsylvania demonstrated that aquariums with fish afforded occupants of the waiting room with relaxation and calming effects, Candle has produced video tapes with sound tracks—the pictures show fish swimming while the audio sounds like bubbles. The result is Video Fish One. Comes, also, in videodisc form. Available to those who wish to create a relaxing environment.

Schering has received FDA approval for marketing albuterol, a long-acting bronchodilator, in tablet form. It is a prescription medicine and will be marketed by Schering under the trade name PROVENTIL® Tablets and by Glaxo, Inc. under the trade name VENTOLIN® Tablets. Both preparations are dispensed in either 2 mg or 4 mg tablets.

Safeguard Business Systems announces a new appointment scheduling system for single practitioners and multi-physician offices. The System consists of 52 weekly appointment sheets, 12 monthly indexes and a ring binder for storage. It is designed for 10- and 15-minute intervals. Appointment may be scheduled for one, two or three doctors. It is contained in a compact attractive soft-vinyl binder.

The Racal Airstream Company announces the AC30 Flowstream Crown Supplied-air System. It provides eye, face and respiratory protection for industrial and agricultural applications not requiring head protection. Purified compressed air tanks are worn at the waist and supply a regulated flow of air to the face mask. The faceshield provides protection and unrestricted vision.

Hewlett-Packard announces a major advance in the accuracy of fetal heart rate variability with ultrasound. The fetal-maternal monitor and its wide-beam transducer provide a record of variability that is clinically identical to the direct ECG. The transducer captures a broad abdominal vista—actually 340% of the surface area conventional technology offers.

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

The 3M Tegaderm transparent dressing is recommended by 3M for the protection of central line and peripheral I.V. catheter sites. A new color-illustrated brochure which contains info on the use of the dressing and also two samples of Tegaderm dressing in sterile packets may be obtained by writing 3M at P.O. Box 33600 in St. Paul.

Associated Medical Devices announces an emergency backboard restraint and flotation system called "IMMOBILE-EZE®. The system consists of a short backboard and a long backboard, both of reinforced polyurethene curved to fit the contours of the body with a restraining harness of reinforced vinyl strips. Also an extrication collar of strong yet maleable ensolite for immobilizing the cervical spine. The restraining harness and the straps anchoring the cervical collar are fastened with velcro.

Del Mar Avionics has a new automated ambulatory blood pressure system. Periodic determinations—at intervals of 7.5, 15 or 30 minutes—over a 24-hour period give a true picture of the patient's blood pressure, which may be elevated at the office due to nervousness or may be elevated at work due to stress. Up to 200 measurements may be accomplished in 24 hours. Data are stored on solid-state memory and may be retrieved by a Telepress® Transmitter over a telephone line. The Model 1981 Blood Pressurometer® receives signals from the ambulatory patient through three electrodes and a transducer under the cuff over the brachial artery.

UroTec Systems Corporation has a new closed bladder irrigation system which, after four years of testing, demonstrates a reduction of infections by as much as 98.5%. The PARR Closed Irrigation System will irrigate either continuously or intermittently and is effective in removing clots. Its use is not complicated and may be taught in a few minutes. Since it remains closed, it is easier to manage and requires less nursing attention.

The JOURNAL of the INDIANA STATE MEDICAL ASSOCIATION

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AUGUST 1982

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ABOUT THE COVER

This issue of THE JOURNAL features the 51st Continuing Medical Education article produced by the Indiana University School of Medicine since November 1977. One Category 1 credit hour is awarded for successful completion of the quiz that accompanies each article. See "Schizophrenia: An Update," beginning on page 517.—COVER BY FRED KINGHORN

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LETTERS

A Case History of Inequity

A small community professed the need of a physician to occupy a clinic they had erected in the early 1970s. The last doctor had moved out to do surgery in another town's hospital. The prospective doctor was told there was no other M.D. in the area. On the basis of their need, and the availability of a new home about a mile from the clinic, this doctor moved from the city in which he had been practicing for 40 years into this new community.

No names or places are mentioned in this narration because the victim of this county's peculiar business tactics has no desire to be subjected to any further litigation that might be devised by the corporations that forced this new doctor to continue to practice in too large and too expensive a clinic that could not bring in enough patients to pay for his living expenses.

After losing money at the clinic for five months, this doctor traveled around the area for a distance of 10 miles to find a suitable small office, with no success. After another three months, he found three rooms available in the town, a short distance from the clinic. He needed approval for the move from a local planning board. His request was rejected. He was forced to remain at the clinic. A few years later he was to learn that the members of that planning board were interlocked with a development corporation that was to cause him many months of litigation.

Because of the paucity of patients, this doctor could only keep the clinic open for a few hours each day. When it was closed, he would see patients in his home, since there was no restriction in the dwelling convenant that prohibited professional services being rendered out of a home. Furthermore, there had been no request for this doctor to stop seeing patients at his home during the more than four years that he had been doing that. On the other hand, commercial business was prohibited in this residential area, and yet there were many businesses of that nature operating out of the homes therein with no objection from the corporation managers.

After four years of financial loss caused by a planning board and its related corporations, Providence came to the aid of this new doctor by sending a swarm of field mice into the hot air ducts of the clinic where they died and prevented the use of the heating system for the first time in four years. Management of the clinic would not remove the dear vermin from the air ducts, despite requests to the Board of Health. There was no other place to move his medical equipment except into the home out of which he had been seeing patients for many years.

The tranquility of seeing a few patients a day in his home that was not filled with the stench of putrified vermin was not to last long. Within a few weeks from his departure from the clinic, and without any hearing granted to him by the board of directors of the residential area, he received a summons to appear in court to answer plaintiff's request for an injunction to stop him from seeing patients in his home. A temporary injunction was granted to plaintiffs despite the fact they could not give evidence that the defendant doctor had caused them any damage. The cause was venued to the court of an adjacent county.

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3—Eli Hallal, New Albany	Oct. 1983
4—William E. Cooper, Columbus	Oct. 1982
5—Benny Ko, Terre Haute	Oct. 1982
6—Clarence G. Clarkson, Richmond	Oct. 1983
7—John D. MacDougall, Beech Grove	Oct. 1982
7—Garry Bolinger, Indianapolis	Oct. 1982
8—William C. VanNess II, Alexandria	Oct. 1982
9—Lowell R. Stephens, Covington	Oct. 1983
10—Walfred A. Nelson, Gary	Oct. 1982
11—Edward L. Langston, Flora	Oct. 1983
12—Thomas A. Felger, Fort Wayne	Oct. 1983
13—John W. Luce, Michigan City	Oct. 1982

For two months after the first hearing, the defendant made futile attempts to get his lawyer to tell him when the next trial was to occur. Finally, he called the court of venue to learn that the first court had not even sent his cause to them. He made two more phone calls, and the papers were in the court of venue in two more days. He fired the first lawyer and obtained a new one, who docketed the case for September. At that hearing he learned that the fired lawyer had not even answered the plaintiff's complaints at the first hearing. As a result, the September hearing was an additional loss of time and money in his attempt to obtain justice. The case had to be delayed more than a month for a third hearing.

Plaintiff's lawyer got the court to extend the date set for the third hearing for another five weeks on the claim that he had to be in another court on the date originally determined. Instead of being in court, he requested a deposition for the doctor on that date. The deposition lasted for two hours and contained the information that the board of directors could have obtained from the doctor eight months previously. In addition, that deposition proved damage to the defendant of more than $25,000 as a direct result of the temporary injunction. Plaintiff's lawyer then requested options for settlement out of court. Defendant offered three options, plaintiffs offered one. Theirs was to provide a few rooms for his offices in the same building that their planning board had refused him four years previously. The doctor's lawyer persuaded him to accept their option on the basis that even if the third hearing was in his favor, plaintiffs could request an appeal to the appellate court of the state. Such a move on their part would mean that the injunction would remain in effect for a possible two-year duration until settled in the higher court, and that such litigation would cost the doctor another $10,000. He had no alternative but to follow his lawyer's advice.

More than another month passed before plaintiffs and defendant were to sign the papers for settlement out of court, just three days before the latest scheduled third hearing. At that meeting the defendant found that plaintiffs had fraudulently altered the settlement agreement to delete partitioning of three office rooms. His lawyer had already cancelled the third hearing on the basis that the plaintiffs were acting in good faith. Fraud and criminal conspiracy had been added to the delay of justice.

The judge docketed the third hearing again for a date more than three months after the above phoney compromise and settlement agreement, and told the plaintiff's lawyer that there would be no more extensions. Plaintiffs delayed signing a valid agreement to settle out of court one day before the third hearing, which was not cancelled until all parties had signed it only one hour before the court was to close.

A temporary injunction established by a judge, contrary to the usual procedure of having plaintiffs show evidence of damage to them, which should ordinarily be settled in a few weeks, had lasted for 13 months with $40,000 damage to the defendant. The law of laches had been violated with impunity. The doctor had to spend $4,500 for legal fees in order to obtain a smaller office that he should have obtained the year after he started to lose money at the clinic. Stinking dead mice had forced him out of a white elephant clinic to start a chain of events that were harassing, damaging and costly.

Your benevolent, anonymous reporter has narrated this true account of what can occur to a physician when dealing with a money-loving attorney, a compliant judge and an ambiguous covenant. He hopes that it will serve as a warning to his confreres to prevent them from being subjected to similar difficulties that could interfere with their right to practice medicine. Some corporations waive their covenants for some people but not for others. Research by the AMA legal library shows no record of any similar case reaching the appellate level. Lower court levels of any litigation are not recorded. There may be other doctors who have had the same experience as the one mentioned in this case report. They, too, may have been given the same advice—to settle out of court even though they were the ones damaged. Corporations have the money to delay justice and make the cost of trying to obtain equity prohibitive to most doctors.

Members of the Indiana State Medical Association will at least have this report in their journal files for future reference if they ever need it.

A fervent plea is also made for the readers of this message to put righteous people into their legislative bodies to stop violations of God's Law, common law, valid statutes and the Constitution of the U.S.A.

—**Name Withheld**

Lilly DES Then and Now

(The following letter was published in *The Indianapolis Star* June 15, 1982. THE JOURNAL has been given permission by the *Star* and the author to reprint the letter.)

As a concerned member of the community and as one who is deeply interested in the health of patients, I noted recent correspondence critical of Eli Lilly & Co. and its decision in 1947 to market the hormone DES for the prevention of certain miscarriages.

DES is still serving a very useful and important medical function today in the treatment of a variety of serious illnesses, including cancer of the prostate and certain forms of breast cancer, as well as postmenopausal symptoms.

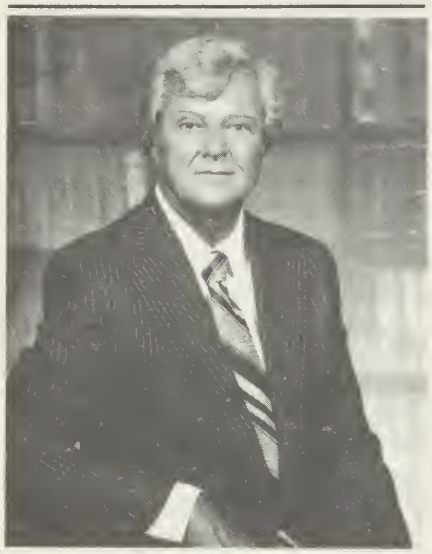
The drug continues to meet our scientific standards as well as those required for approval by the United States government's Food and Drug Administration, which has determined the drug to be safe and effective for these medical indications.

As a company we are, and as a physician I am, interested in making sure only the products deemed safe and effective are ever placed on the market. For 106 years Lilly has been a leader in the pharmaceutical industry in both quality and integrity. That leadership is part of our reputation and good name. In no way would we compromise our reputation and name by knowingly marketing a product that was unsafe for the patient.

In the case of DES, here is some of what went into our decision to market the drug: The leading experts in obstetrics and gynecology at major medical

CONTINUED ON PAGE 509

Physicians Insurance Company of Indiana: Ready to Serve Indiana Doctors



MARTIN J. O'NEILL, M.D.
President
Indiana State Medical Association

A Message from the President

THE INITIAL organizational steps have been completed, and the doors are open wide. Physicians Insurance Company of Indiana, PICI, is fully licensed to conduct business in Indiana, and can now write *medical professional liability insurance* policies for Indiana doctors.

Through sponsorship of the ISMA, and initial assistance in funding for capitalization from the physician-owned companies in Ohio, Michigan and Kentucky, PICI has garnered tremendous support within the medical community. Indiana doctors now have *their own* company, which has pledged its commitment to their best long-term interests, and promised to be *accountable* to them in its insurance activities.

The company offers occurrence coverage, with primary limits of $100,000/$300,000. The rates that have been established are approximately 5% below those of the predominant commercial carrier of this line of insurance in the state.

Physician-oriented claims procedures will be a cornerstone of the company, which has a doctor-dominated board of nine directors. No claim that would ordinarily be covered by the policy will be settled prior to court judgment, without the written consent of the policyholder. Doctors will not be surcharged during the next policy period for claims that may occur this year. The most experienced legal counsel in the most eminent law firms in Indiana will be enlisted to handle professional liability claims.

Many physicians will remember that, during the "malpractice crisis" period of the mid-1970s, meaningful statistics about medical professional liability insurance experience could not be obtained from any of the commercial carriers. The PICI Board of Directors have made it a priority to provide claims data, through slide presentations and other material, to Indiana physicians as soon as valid information is available, probably within about four years.

Kurt F. Driscoll, formerly a senior officer of Physicians Insurance Company of Ohio, has been selected to become executive vice-president and chief executive officer. Mr. Driscoll has a very strong background in the underwriting and marketing of medical professional liability insurance. PICI has established offices in Indianapolis.

The members of the first PICI Board of Directors were selected by the organizations that provided initial capital for the company: Indiana State Medical Association, Physicians Insurance Company of Ohio, Physicians Insurance Company of Michigan, and Kentucky Medical Insurance Company. The Board members are:

- Martin J. O'Neill, M.D., Valparaiso, chairman and president
- Donald F. Foy, executive director of ISMA
- Paul Siebenmorgen, M.D., Terre Haute
- Alvin J. Haley, M.D., Carmel
- John A. Knote, M.D., West Layfayette
- Herbert Khalouf, M.D., Marion
- Joseph K. Gilmore, president, Physicians Insurance Company of Ohio
- William G. Olsen, president, Physicians Insurance Company of Michigan
- Carl B. Wedekind, M.D., president, Kentucky Medical Insurance Company
- John J. Gaughan, M.D., Cleveland, Ohio
- Arthur B. Eisenbrey, M.D., Detroit, Michigan.

For more information about the company, its coverages, and its policies and procedures, please contact Mr. Kurt Driscoll at the company's office, 3901 W. 86th Street, Suite 350, P. O. Box 689059, Indianapolis, Indiana 46268, (317) 872-3046 or toll free in Indiana, 1-800-732-1313.

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The Rights of the Poor and the Poor Taxpayer

Guest Editorial



L. A. ARATA, M.D.
Shelbyville

AS AMERICAN CITIZENS we all have rights; where our rights touch on the rights of others, we have a potential conflict. The rights of the taxpayer to his income involve the rights of the Poor; herein lies our story.

First, I would like to comment on "the Poor." Our political-social system makes no distinction between the *poor,* the *careless,* and the *needy.* These unfortunate are lumped together as "the Poor," and our politicians and social planners extort huge sums from the taxpayer for their benefit.

I have no quarrel with the concept of helping those who need help; I am in favor of it. But, what is help? Who needs it? How can it be given so that it helps instead of harms the recipient? Who are the Poor? Who are the Needy? Can the Careless be helped? How? These are difficult questions, and by definition, a difficult question is one that has no easy answer.

Many of the Poor are not needy and do not want a handout. Many of them prefer to handle their problems in their own way. They must have the right to do so.

The Needy, by definition, need help. Help should be available to them. However, many of the Needy are not Poor. Some of the Needy have bought too many luxuries that they cannot afford, or have otherwise mismanaged their finances so badly that they may lack some of the simple necessities of life. So, one can be needy without being poor.

The Careless are a large group of us. Probably all of us are careless to a certain degree. We may be poor and careless; rich and careless; needy and careless; or none of the above. The big socio-political question is how can we separate those who need help from the large numbers of those who simply cannot be helped—because of their life-long habits of severe carelessness.

For this discussion, I would like to think of Society as a group of families, just as a Family is a collection of individuals. The family members are bound together by ties of blood; the Society by ties of national traditions, common language, ethnic origins, etc. In the single family, there are individuals with various physical, emotional, educational and other needs. The good parents need not treat the individual family members equally; they do not buy a steak to feed a three-month-old infant. The effective parents usually try to encourage growth toward independence and self-sufficient behavior in their members—such encouragement and expectations being commensurate with the degree of maturity and capabilities of their offspring. To do otherwise is to foster continued dependence on the gradually aging parents. Carried to its final conclusion, it leads to the unfortunate end at the disability or death of the parents with the other family members cast adrift in society still totally unable to care for self. At some point, the parents must free themselves of eternal support of their children; they cannot support them perpetually, for the parents are not perpetual.

Society, as a whole, is in a somewhat comparable position. The parents of society are the taxpayers. They cannot afford to support forever a constantly growing family of dependents. Our socio-political system tries to deny this basic fact. Our Welfare system encourages self-growth in numbers, and continued dependence on the taxpayer for support and care. The burden on the taxpayer ever increases, and the system even encourages taxpayers to shift over into dependence. It is a growing, self-perpetuating monster that is threatening the destruction of our society by the destruction of that which supports society, namely, the taxpayer.

As a parent, in an individual family, I consider what I might do if I had a comparable disaster in my own household. I would be unable to furnish a perpetual, open-ended "welfare system."

Can Society furnish such a system in perpetuity?

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The Physician's Sleep Glossary

Some common sleep laboratory terms

poly•som•no•graph. An instrument which simultaneously records by electrodes physiological variables during sleep—for example, brain activity (EEG), eye movements (EOG), muscle tonus (EMG) and other electrophysiological variables. These readings indicate precisely when patients fall asleep, how many wake periods they experience, the quality of sleep and the duration of sleep.

sleep la•ten•cy. The period of time measured from "lights out," or bedtime, to the commencement or onset of sleep.

wake time af•ter sleep on•set. Intervals of time spent awake between onset of sleep and the end of the sleep period. The polysomnograph registers the length and frequency of the intervals.

to•tal sleep time. The amount of time actually spent in sleeping. This is estimated by subtracting wake times from the period encompassed by the onset and the termination of sleep.[1]

REM/NREM. 1. REM, or rapid eye movement, sleep is "active"—characterized by increased metabolic rates, elevated temperature and arousal-type EEG patterns. 2. NREM, or non-rapid eye movement, sleep represents "quiet" sleep stages. There are four distinct stages of NREM sleep.[2]

re•bound in•som•nia. A statistically significant worsening of sleep compared to baseline on the nights immediately following discontinuation of sleep medication.[3]

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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

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LETTERS

CONTINUED FROM PAGE 503

centers, such as Harvard and the Mayo Clinic, tested DES for years and found it to be safe and effective. A Yale University study on pregnant monkeys in 1944 showed no ill effects to the parents or offspring.

Only after extensive testing did we seek, in 1947, to market the product for treatment of pregnancies in danger of termination.

Recently DES has been associated statistically as a risk factor in a very rare form of cancer. However, there is no scientific evidence, even today, that DES is a *cause* of vaginal cancer in the daughters of women who took the drug. It is important to note the vast difference between statistical risk factor and actual cause of serious side effects with a drug.

No drug is absolutely safe, and risk factors are associated with any drug. The situation involving DES is considered a statistical risk factor, rather than a cause, because this type of cancer has also been diagnosed in women whose mothers have *never* taken DES.

The fact is that this particular form of cancer has been shown to be extremely rare for either group, and the medical benefits of this drug justify its continued availability and use by the medical profession.

Louise R. Levine, M.D.
Head, Medical Research
Marketed Products
Clinical Investigation Division
Lilly Research Laboratories
Indianapolis

Science Student Institute

Indiana University was one of the first schools in the country to hold a science program strictly for outstanding science students. The High School Science Student Institute (HSSSI) originated in 1956 and now enrolls 60 high school students prior to their senior year for a live-on-the-campus summer institute. The National Science Foundation supported the undertaking financially from 1959 through 1981.

The Institute now needs contributions to keep the cost as low as possible for all participants and to aid those who cannot afford the full fee.

Contributions are now being received for the current year and for the enrichment of the 1983 program. Checks may be made payable to the I.U. Foundation (HSSSI) and mailed to the Foundation at Bloomington.

Most of the former participants have continued in the study of science and many have entered the medical profession. All have benefited immensely and return to Bloomington when possible for an annual reunion picnic which opens each session. All physicians who are alumni of HSSSI are urged to inform my office of their present mailing address, to insure notification of the reunions each year.

Every physician is asked to contribute to the financial support of the Institute and its mission of nurturing and enlarging the scientific curiosity of high school students who are attracted to the study and enjoyment of natural science.

Contributions enjoy the tax exemptions which are customary and in addition are subject to the special treatment of contributions to an Indiana college.

Walter Cory
Coordinator for School Sciences
and Director, High School Science
Student Institute,
Memorial Hall W-108
Bloomington, Ind. 47405

Compliments May Issue

It happens that very soon after the Delaware Lung Association celebrated its 75th anniversary, with a big dinner and Gov. duPont the speaker, I saw your May issue of THE JOURNAL. A copy with its arresting red warning to smokers seemed to jump out of a stack of medical journals from around the country. The place was the office of the *Delaware Medical Journal* in Wilmington.

My compliments on that cover to your artists Fred Kinghorn and Betty Caparo.

This got me reading the two articles on control of smoking as seen by Dr. L. H. Bates and Dr. T. W. Kuebler. As an interested layman (newspaper editor retired) and reformed smoker, I can compliment them, too. Their drift came through to me very well despite their medical language. . . .

Anthony Higgins
Hockessin, Del.

Let Them Eat Cake

Guest Editorial

RICHARD J. FEINSTEIN, M.D.
Editor
Miami Medicine

A PHYSICIAN COLLEAGUE of mine does not believe that he should have to contribute either his time or money to charity. He feels that his work as a physician is so altruistic and so important to humanity that he should be exempted from communal obligations that are encouraged and expected from others. He similarly does not contribute time or money to medical organizations which are striving to protect his very right to practice medicine as he does.

Unfortunately, many other physicians share his beliefs. Medical doctors are known among representatives of charities and non-profit organizations as unwilling cash contributors and even more unwilling donors of free time for the voluntary efforts which serve the public good.

Most people have come to expect this attitude from physicians and even encourage it by becoming extremely apologetic when they feel they are intruding upon the doctor's "valuable" free time. These same people ask freely of the time and efforts of all others without such apologies and most charities have learned to expect little from physicians, despite what could be expected from their reputed incomes.

Yet, there still exists the widespread belief in our society that physicians are the most altruistic workers of all. Although all workers benefit society by their production of goods and services and their purchasing power within the marketplace, certain jobs are thought to benefit society to a greater degree than others. It is these workers who are sometimes idealized as being altruistic individuals who labor for some greater reward than the mere wage they receive each week.

Society can be fickle, however. Clergymen, nurses and teachers, for example, are thought to be important to society, and perhaps even altruistic, but are poorly rewarded. On the other hand, entertainers and athletes, not generally regarded as altruistic, are rewarded with great sums of money for their labors.

Physicians are still well-treated by society, despite some recent scattered hostilities which have appeared in the courts and in the media. Most people generally still feel that physicians are altruistic, honorable, important, and basically worthy of the large remunerations they are thought to receive.

A few physicians (but, I fear, a growing number) may not be worthy of the societal halo which is bestowed upon the medical profession. These few selfish entrepreneurs display the antithesis of altruism, serving only themselves and their own interests. They bask in the glory that was created for them by generations of dedicated physicians, and in the glory that is still inspired by the vast majority of physicians who continue to place the interests and well-being of their patients above everything else.

We can apologize for these few selfish doctors by saying that they are the unfortunate by-products of a brutally competitive educational system which has encouraged the selection of the wrong personality traits for prospective medical doctors. We can say that they are the by-products of the impersonal third-party insurance system which

Reprinted by permission from *Miami Medicine*, August 1981. *Miami Medicine* is the official periodical of the Dade County (Florida) Medical Association. Dr. Feinstein is a member of the Florida State Board of Medical Examiners and practices dermatology in Miami and Cutler Ridge, Fla.

allows a physician to treat patients with little regard for the costs involved in such places as "Medicaid mills." Whatever their reason for being, these few physicians are interested only in their own welfare and lack the spirit of humanity and concern which is implicitly necessary for the practice of medicine.

Patients become objects—organs which are sources of revenue. Crowded waiting rooms are not just breathless chambers of agony where uncomfortably sick human beings wait hours to be seen by the busy entrepreneur for a few minutes, but become fiscal reserves. They are not bothered by having an appliance salesman assist them during surgery, and they are not concerned with having a nurse make opening incisions during abdominal surgery. And if the patient is upset, their attitude will often suggest, "let them eat cake."

Physicians are human and cannot be separated from the world in which they live. Our society shows signs of decay, of hedonism and moral corruption. Absenteeism and inefficiency in the workplace are common, and millions of Americans receive paychecks for *not* working. Drugs, sexual exploitation and violence have become part of our daily lives. Americans have become caught up in the wave of self-interest.

This is not altruism, and the public still believes that physicians are selfless and hardworking. Physicians must fight off the base values which are sweeping society. A good life and a good income will follow for those who work hard and treat the interests of their patients before their own. Physicians have obligations to fulfill apart from their tasks as medical doctors, and these include continuing to demand the best possible medical care for patients by preventing governmental intrusion into the practice of medicine.

We must place pressure on the physician entrepreneurs in our midst to change their ways and to begin placing the interests of their patients first. If they decline, then we must try to remove from them the medical halo earned by the hard work of so many truly dedicated physicians.



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Hospital Accepts Proposals to Halt Lawsuit

(Last fall, a "revolt" by the medical staff at St. Mary Medical Center in Lake County against the hospital administration drew headlines in various northwest Indiana newspapers as well as in other publications in the United States. The following is a press release provided by Felipe S. Chua, M.D., chairman of the Executive Committee and Ad Hoc Committee of the Medical Staff at St. Mary Medical Center; it describes the lawsuit filed in connection with the hospital Ambulatory Care Program, a situation which Dr. Chua says created a controversy "of national significance as far as preservation of the free enterprise system of medical practice in this country is concerned.")

ST. MARY MEDICAL CENTER has accepted the 8-point proposals of the medical staff on the hospital's Ambulatory Care Program, thus paving the way for dismissal of a lawsuit filed by the doctors last November.

The physicians on the staff had charged the hospital with "unlawful practice of medicine, violation of the medical staff bylaws, and unfair competition."

The nationally publicized controversy came about when St. Mary Medical Center hired several physicians, subsidized by the hospital; their professional fees were set and collected by the hospital. The physicians on the staff, who were not consulted on this program, and who felt that this program would also lead to poor quality medical care, filed a suit Nov. 18, 1981, with the Lake County Superior Court.

Meanwhile, resolutions supporting the medical staff of St. Mary Medical Center were passed by the individual medical staff of the various hospitals in the area.

In its most recent staff meeting, the doctors of St. Mary Medical Center approved the 8-point proposals recommended by its own Ad Hoc Committee and legal counsel as a last ditch measure to resolve the controversy.

The proposals, which also asked for removal of the Ambulatory Care Program from the hospital premises, were accepted by the St. Mary Medical Center Board of Directors.

The proposals agreed upon are as follows:

1. The Ambulatory Care Center shall be removed from the Hospital premises as soon as possible.

2. The name "St. Mary Medical Center" or any name indicating or implying an association with the Hospital shall not be used for the new Ambulatory Care Center.

3. The physicians in the program shall be completely independent professional practitioners. No officer or employee of the Hospital, and, in particular, no officer or employee not licensed to practice medicine shall have any control or supervision of the physicians on medical decisions.

4. The newly formed Ambulatory Care Center shall not bill patients for physician services, as all services rendered by physicians shall be on a direct billing basis from physician to patient. Charges for Hospital services shall be billed in the name of the Hospital.

5. The Hospital will not enter into an employer-employee relationship with physicians for the Ambulatory Care Center; however, in order to induce physicians to service the Ambulatory Care Center, the Hosital may offer physicians found to be in short supply a guarantee that their income will not fall below a predetermined level for a period not to exceed two years.

6. The Hospital will provide no subsidies to its physicians for costs and expenses incurred for private offices or facilities.

7. No doctors serving the Ambulatory Care Center shall enjoy preferential admitting privileges or other privileges not available to other members of the Medical Staff.

8. The Hospital Administration and the Medical Staff shall consult with each other on all professional medical aspects of the Ambulatory Care Program and no medical changes in the program shall be made prior to submission of proposed changes to the Medical Staff for its professional consideration.

Mr. John Dandridge, St. Mary Medical Center's Hospital Administrator, reported to the medical staff that the hospital's Board of Directors has agreed to the 8-point proposals. Mr. Drandridge said, "The Board of Directors is in agreement with the conclusions contained in that correspondence that the Board and Medical Staff are sincerely attempting to resolve the pending issues, and that the objective of serving the medical needs of the Gary community is shared by all."

Following this, the plaintiff doctors consented to ask for dismissal of the suit "without prejudice" which the court granted, with Judge Morton B. Kanz presiding.

"As long as the lines of communication remain open and a spirit of cooperation prevails, I do not believe there will be any need for future litigation," said Medical Staff Legal Counsel David Stevens.

Medical Staff President Arun Goel, M.D., and Ad Hoc Committee Chairman Felipe Chua, M.D., last year's Staff President who led the doctors in filing the lawsuit, assured the 250-member medical staff that the same lawsuit could be filed again if the medical staff finds it necessary.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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ASIM Recommendations for a National Health Policy

The American Society of Internal Medical has prepared several recommendations for a positive "incentive-based" national health policy. ASIM urges adoption of a policy that:

1. Creates incentives for providing services in ambulatory instead of in-hospital settings by (a) reimbursing more equitably for services provided in the ambulatory setting (b) discouraging insurers from placing punitively high deductibles on services provided in the ambulatory setting, and (c) discouraging insurers from denying reimbursement for covered services on the basis of the setting in which the service was provided (as long as the setting is medically appropriate).

2. Develops more efficient methods of reimbursement for sevices provided in the hospital by (a) enacting a prospective reimbursement system under Medicare and Medicaid for routine hospital costs and (b) studying on a demonstration project basis other incentive-based approaches to hospital reimbursement.

3. Promotes appropriate patient cost-sharing in the form of copayments and co-insurance as a feature of all private and public health insurance plans.

4. Reduces incentives for expensive technological and procedural care by (a) including coverage in all insurance packages for physicians' cognitive services and (b) changing the relative amounts at which these services are reimbursed so that cognitive services are reimbursed at a level that recognizes their true value to the patient.

5. Reforms costly and ineffective federal regulations by (a) repealing the federally mandated health planning program and (b) continuing efforts to review, revise or eliminate other federal regulations that have contributed to high costs.

6. Supports and encourages voluntary private sector programs in health planning, cost-effectiveness and quality and utilization review by (a) minimizing federal interference in private sector activities and (b) enacting legislation to restrict the inappropriate use of antitrust laws by the Federal Trade Commission to prevent or impede the development of cooperative private sector activities.

7. Improves the administration of the Medicare and Medicaid programs by (a) creating a commission charged with assigning high priority to reducing administrative and paperwork requirements imposed on physicians, patients and hospitals, in consultation with physician, patient and hospital representatives, (b) requiring nationwide conversion to a single coding system for describing physician services based on Current Procedural Terminology and (c) studying and developing ways to minimize reimbursement disputes due to inaccurate or incorrect intermediary determinations and ways to more quickly resolve such disputes.

8. Reduces waste, fraud and abuse in the Medicare and Medicaid programs through a collaborative effort between the Health Care Financing Administration and physicians.

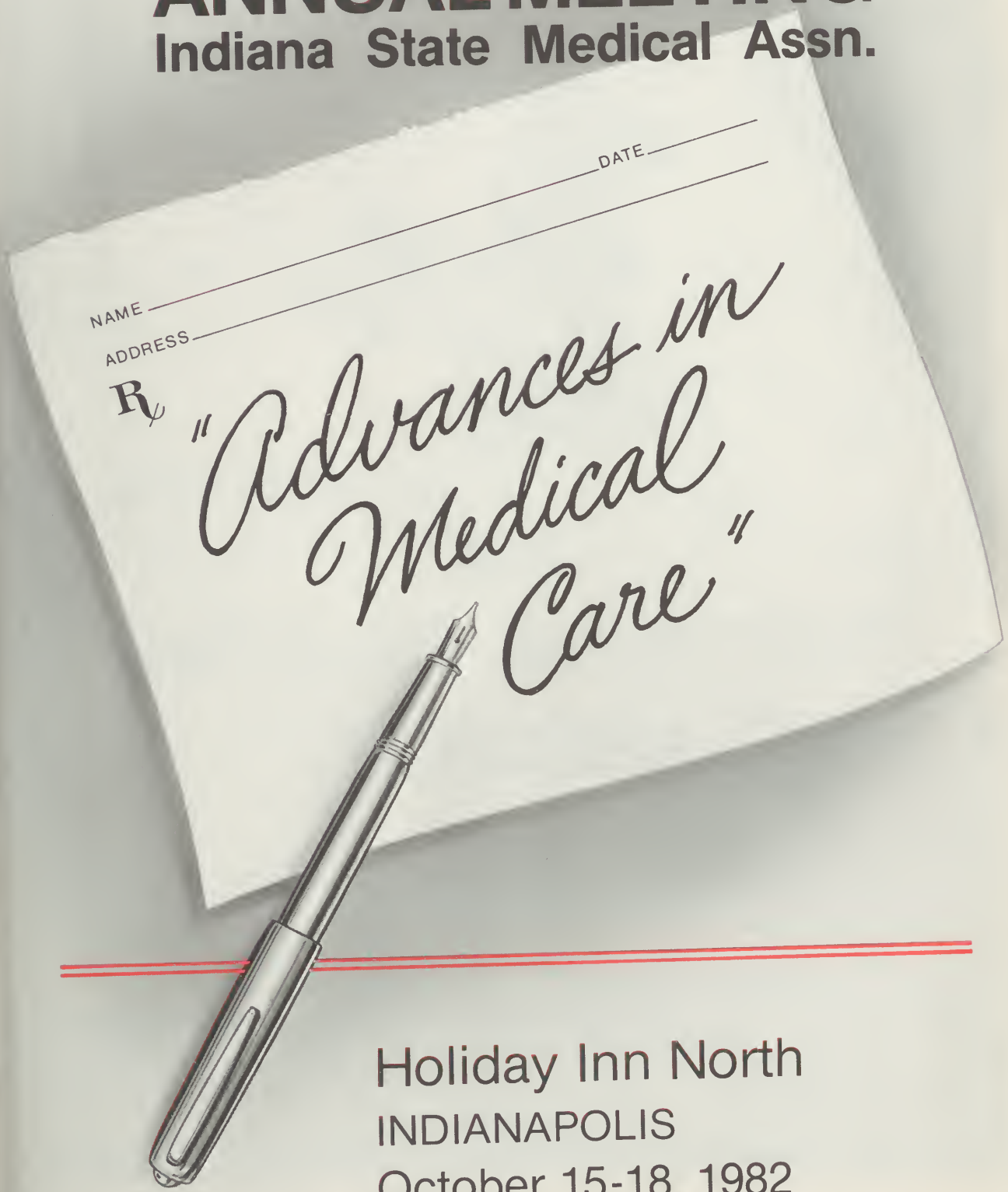
9. Expands consumer choice of insurance plans by creating incentives for the selection of more cost-effective plans through enactment of legislation that would expand choice of insurance plans and alter tax laws to discourage over-insurance.

10. Promotes health counseling and other preventive measures to reduce illness and premature death by (a) encouraging health insurers to provide adequate coverage for physicians' preventive services, (b) studying the efficacy of insurance programs that provide economic incentives for individuals to stay healthy by avoiding destructive health habits and (c) identifying and eliminating federal price supports for tobacco products and other federal and state programs that support or promote products proven harmful to health.

ASIM believes that restructuring the health care system along the above lines would not only be effective in moderating health care costs, but would also provide the public with the kind of health care system desired: an affordable, high-quality system encouraging personal, caring, preventive primary-care services in physicians' offices instead of expensive, impersonal, technology-oriented care in hospitals. ASIM is providing these recommendations to the Reagan administration, Congress, health insurers, business and labor groups, the AMA and other physician organizations, hospitals, state governments and other interested groups. The Society challenges each of those groups to work with ASIM on implementing the above and other recommendations for a national incentive-based health policy.

Physician comments may be directed to the ASIM at 1101 Vermont Avenue NW, Suite 500, Washington, D.C., 20005, or to the Indiana Society of Internal Medicine, 3935 N. Meridian St., Indianapolis 46208.

1982
ANNUAL MEETING
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To obtain Category 1 credit for this month's article, complete the quiz on Page 541.



Schizophrenia: An Update

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SCHIZOPHRENIA constitutes the premier mental health problem facing us at this time. The total cost to the nation of the disorder including both direct and indirect expenses has been estimated at $19.5 billion annually.[1] The cost in personal suffering both to the patient and to his family is incalculable. Schizophrenia has been the subject of intensive investigation over the past decades but its essence remains elusive.

The purpose of this paper is to present an update on current knowledge about the illness.

Epidemiology

Despite differences in diagnostic techniques and methodologies, there is considerable agreement regarding the frequency of occurrence of schizophrenia in the community. Drawing from several studies, Babigian reports the incidence rate to range from 0.43 to 0.68 per 1,000 population per year.[2] The prevalence data can be summarized in a variety of ways. Most simply: about 2 million Americans suffer from schizophrenia today. Between 0.23% and 0.47% of the total population are likely to receive psychiatric treatment for a schizophrenic illness during any particular year; 62% of these individuals will require at least one hospitalization during that year. There is a lifetime prevalence of 1% for the disorder.

Schizophrenia shows an increased prevalence in lower socio-economic groups, particularly in large, urban areas. The reasons for this increase are not clear. It has been explained in terms of high rates of mobility and social dis-

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organization which eventuate in high degrees of isolation, thereby increasing the individual's vulnerability to schizophrenia. An alternate hypothesis suggests that individuals with schizophrenia are likely to be downwardly mobile and that this is sufficient to explain the disproportionate number of schizophrenics in the poorer classes.

Clinical Features

There has been considerable effort made over the past several years to clarify and render more reliable psychiatric diagnoses. This effort culminated in the publication of the new *Diagnostic and Statistical Manual of Mental Disorders* (DSM III) in 1980.

The criteria for the diagnosis of schizophrenia are listed in *Table 1.* While a deteriorating course is not now a diagnostic *sine qua non,* deterioration from a previous level of function in work, social relations and self care is considered an essential feature. At least one of the specific symptoms listed in *Table 1* has to be present during a phase of the illness before a diagnosis of schizophrenia can be made and the illness has to last at least six months.

Schizophrenia has to be differentiated from other psychiatric syndromes that may have some partial resemblance to it such as affective disorders, certain personality disorders, paranoid disorders, and anxiety related disorders.[3]

It also is essential to differentiate schizophrenia from diseases of known organic etiology that can present with a phenomenologically indistinguishable picture. These include such disorders as temporal lobe epilepsy and the early stages of Huntington's Chorea.[4] Drug induced psychoses also can present with a very similar clinical picture of schizophrenia, particularly those associated with the ingestion of phencyclidine or amphetamine. It has been estimated that the misdiagnosis rate of schizophrenia ranges from 1-11%, depending on the setting.[5] To make an accurate diagnosis, it is essential that a careful history and mental status evaluation is conducted with the patient and that the historical information is verified with at least one relative. Comprehensive physical examination and the appropriate laboratory studies are extremely important to rule out the presence of organic mental disorders.

TABLE 1

Diagnostic Criteria for Schizophrenic Disorders (Modified from DSM III)

A. At least one of the following during a phase of the illness:
   1. Bizarre delusions where content is patently absurd,
   2. Delusions without persecutory or jealous content (somatic, grandiose, etc.),
   3. Persecutory or jealous delusions if accompanied by hallucinations,
   4. Auditory hallucinations of "running commentary type" or two or more voices conversing with each other,
   5. Episodic hallucinatory experiences that are not associated with changes in affect,
   6. Association disturbance if accompanied by:
      a. Blunted, flat, or inappropriate affect,
      b. Delusions or hallucinations,
      c. Catatonic or other grossly disorganized behavior.

B. Deterioration from a previous level of functioning.

C. At least six months duration.

Course and Prognosis

A number of risk factors for schizophrenia have been proposed including having a schizophrenic relative, an aberrant perinatal history or abnormal pursuit eye movements, but there remains doubt about the existence of a characteristic premorbid personality structure. Descriptions of the pre-schizophrenic child as being schizoid or being overly dependent and overly compliant have not been borne out in more recent studies.[6]

The course of the disorder is exceedingly varied, making it difficult to describe a single model. Nevertheless, many clinicians have identified a prodromal stage characterized by anxiety remarkable for its severity and pervasiveness usually beginning in late adolescence. The individual may experience a state of panic succeeded in turn by a psychotic insight by means of which he or she tempers the intensity of the bizarre experiences with explanatory delusions. There may follow a multiplication of symptoms heralding the acute state (refer to *Table 1).*

Although the individual may regress further to a state in which primitive nonspecific symptoms predominate, there is more likely to be improvement that occurs suddenly or over a prolonged period of time or a series of exacerbations and remissions. Remissions may be complete but often there are residua, for example, lack of drive. One form of early schizophrenia likely to be encountered by primary care physicians is characterized by somatic complaints such as headache or arthralgia, weakness or indigestion. Sometimes the individual in the early stages of schizophrenia is dismissed as a hypochrondriac or malingerer.

Lehmann has reported on five possible outcomes for the schizophrenic patient: full and permanent recovery; full remission, with one or more future relapses; social remission with personality defect and with the patient either capable of the self-care and self-support or dependent on protection and supervision; stable chronicity; and deterioration to a terminal stage. Few patients at present now reach that vegetative-like existence which characterizes the terminal state. Under good therapeutic conditions, up to 30-40% of patients will still end up in the state of stable chronicity. The remainder remit or recover.[7] A list of factors associated with a favorable prognosis is given in *Table 2.* However, these prôvide only rough guides and are of limited value in evaluating the individual patient.

The incidence of suicide in schizophrenic patients is higher than in the general population although the precise rate is unknown.

Etiology

The concept that schizophrenia is a

syndrome consisting of etiologically distinct subgroups has received support from the results of studies using the new brain imaging techniques. The most consistently reported abnormality is the finding of enlargement of inner and outer cerebro-spinal fluid spaces on examination of computerized tomographic scans, in a subgroup of schizophrenic patients. These patients generally are characterized by poor premorbid adjustment, evidence of some neurological impairment and poor therapeutic response to neuroleptics.[8]

On the basis of their investigation, Andreasen, *et al.*, propose that schizophrenia can be divided into two subtypes. One group consists of patients with primarily negative symptoms such as lack of affect, lack of volition, and pervasive loss of pleasure. This type generally is associated with large brain ventricular size, and the presumptive etiology is inherited predisposition, slow virus infection, or perinatal insults. The other group comprises patients with primarily positive symptoms such as delusions, hallucinations and bizarre thinking. These patients have normal brain ventricular size, and the disorder may be the result of more focal brain dysfunction in which neurotransmitter abnormalities are likely.[9]

The application of the brain imaging techniques to the study of schizophrenia is likely to provide more exciting insights into the pathogenesis of the disorder in the near future. For example, a provocative preliminary finding from position emission tomographic studies suggests a diminution in glucose metabolism in the frontal lobes of these patients.[10]

While there are probable developmental, psychophysiological and environmental contributions to the etiology of schizophrenia, the evidence for a genetic influence in the development of the disorder is most compelling. Studies of familial incidence were reviewed by Slater. The parents of an index case of schizophrenia have a risk of 3.8%, siblings 8.7%, children 12.0%. If both parents have been diagnosed as schizophrenic, one's risk is 35-44%. This compares with a lifetime risk in the general population of about 1%.[11] These statistics are not necessarily informative, however, about genetic predisposition insofar as they fail to distinguish genetic, intrauterine and extrauterine factors.

TABLE 2
Factors Associated With a Favorable Prognosis

A.	Six months or less from the onset of the illness to a fullblown psychosis (i.e., rapid onset).
B.	Clear precipitating circumstances.
C.	Marriage.
D.	Good premorbid social adjustment and work history.
E.	Presence of depressive features.
F.	The patient's premorbid personality is not schizoid.
G.	Feelings of guilt expressed.
H.	Presence of confusion or disorientation on admission.
I.	Intelligence is average or above average.
J.	Absence of marked emotional blunting during hospitalization.
K.	No schizophrenia in blood relatives.
L.	Preoccupation with death.
M.	A blood relative with a psychotic depression.
N.	Obsessive and compulsive features that protect against deterioration.
O.	Paranoid patients remain paranoid but do not deteriorate as often as other subtypes.
P.	Family stability.

More persuasive have been studies on comparisons of monozygotic twins and dizygotic twins. Gottesman and Shields reported a pairwise concordance rate for 24 sets of monozygous twins as 42% and for 33 sets of dizygous twins as 9%.[12] It has been reported that twins discordant for schizophrenic are nevertheless likely to have some form of psychopathology such as character disorder, neurosis, alcoholism, reactive psychosis or borderline state. As in the case of familial studies, in interpreting the data from twin studies, one should remember that by themselves they do not separate out genetic, intrauterine and environmental factors. An approach combining twin and adoption studies has been employed; however, the number of cases in which one twin is identified as having schizophrenia and the other twin has been reared apart are few. Slater reported on 16 such cases, citing a concordance rate for schizophrenia of 62.5%.[13]

Adoption studies have focused on biological and adoptive relatives of individuals with schizophrenic illness or on children adopted away from families in which one of the parents had schizophrenia. Kety, *et al.*, reported that a schizophrenic-like diagnosis was accorded to five times as many of the biological relatives of adopted schizophrenic children as to the relatives of nonschizophrenic children. Moreover, biological paternal half-siblings of schizophrenic adoptees were found to have more than the usual risk for schizophrenia. This particular finding does help distinguish genetic from intrauterine factors.

Rosenthal's studies on adopted-away children, one of whose biological parents had been diagnosed as having schizophrenia, generated the concept of the schizophrenic spectrum. There were 39 adoptees of psychotic parents. Thirteen were found to be schizophrenic, borderline or schizoid or else had paranoid personalities.[14] These studies marshalled support for the contention that what is inherited is not schizophrenia *per se*, but a range of psychopathology. Whereas it was formerly thought that schizophrenia itself or else schizoid personality structure was genetically transmitted, current thinking gravitates toward the spectrum concept of various personality and neurotic disorders as well as creative ability being complex heritable traits found in relatives of schizophrenic individuals.[15]

In a recent critique of the studies of adopted-away offspring of schizophrenic patients, Lidz, *et al.*, call attention to the inclusion of parents with manic depressive and indefinite diagnoses in the index group without which there would be no statistically significant occurrence of schizophrenic spectrum diagnoses in

the offspring. While Lidz, *et al.*, concede the utility of the spectrum concept, they are disinclined to accept a genetic explanation for it.[16]

Nevertheless, most authorities agree that genetic factors play a part in at least some forms of schizophrenia, although the actual mode(s) of inheritance or just what is inherited is still speculative. The various biochemical hypotheses which have been proposed in the pathogenesis of schizophrenia have been well reviewed recently by Neale and Oltmann.[17]

Treatment

Schizophrenia is a disorder characterized by a chronic but fluctuating course where symptom intensity can wax and wane and by a pervasive effect on all aspects of the patient's functioning. Optimally, the mental health care system should provide continuity, comprehensiveness and flexibility of care. It should include outpatient care with family support groups, crisis intervention facilities, brief hospitalization services, partial hospitalization and day care programs, rehabilitation community support programs (i.e., O.T., R.T., industrial retraining programs including sheltered workshops) and longer term hospitalization for some first-time admissions and some chronic patients.

There has been a recent worthwhile emphasis on the establishment of therapeutic alliance not only with the patient but also with the patient's family. The beneficial effects of a supportive, relatively non-judgmental family to the schizophrenic patient have been well established. Conversely, it appears that exposure to expressed critical, negative feelings from family members increases the patient's chances of relapse. The establishment of family groups to engage the family members actively in the treatment process through education and support now appears an important element in the provision of optimal care.[18]

Despite concerns regarding the development of tardive dyskinesia, the cornerstone of treatment of the schizophrenic patient remains the judicious use of neuroleptic medication. Many studies have indicated the superiority of the neuroleptics over placebo in the acute and chronic management of the schizophrenic patient. Some studies have suggested that two of three patients will decompensate within one year of drug discontinuation.[19]

There is no evidence that one antipsychotic agent is clearly superior to another in the treatment of any subgroup of schizophrenia or of any target symptom. It does appear, however, that an individual may respond better to one agent than to another. Therefore, the clinician should be familiar with representatives from the different classes of antipsychotics. It is worthwhile to be familiar with the depot injection form of fluphenazine because the clinician is sometimes faced with a marginally compliant patient for whom a long-acting phenothiazine is most suitable. Initially, it is helpful to take a thorough drug history because the patient who has had a particularly favorable or unfavorable response to an agent is likely to respond to the same agent again in the same way. Similarly, family history of drug response can be of help.

To monitor drug response, it is useful to identify target symptoms. Most responsive to the antipsychotics are agitation, hallucinations, combativeness, sleep disturbances, tension and paranoid behavior. Less responsive are impaired judgment, lack of insight, depression, withdrawal and poor motivation. Titration of the dose against the target symptoms can be done with increases every three to four days until improvement occurs or until side effects become problematic. Probably the most common cause of treatment failure is inadequate dose. If symptoms fail to respond to an adequate dose of one medication in six weeks time, a different class of antipsychotic medication should be tried.

Once the patient is stabilized, and the lowest possible maintenance dose has been established, a single daily prescription of medication will often suffice. In order to establish the maintenance dose the medication can be reduced by 25% every three months until symptoms begin to reappear. Some schizophrenic patients do not require maintenance medication. Unfortunately, there is no variable that permits one to identify them with any degree of certainty. It has been suggested that medication should be continued for six months following the first episode of psychosis. After the second episode, this period is extended to one year. If additional episodes occur, indefinite maintenance medication should be considered.[20]

Side effects vary depending on the type of neuroleptic prescribed. The clinician needs to pay particular attention to extrapyramidal symptoms. For them, oral anti-parkinsonian agents are helpful; however, maintenance on these agents rarely is needed beyond three months. After resolution of the symptoms, the drug should be discontinued gradually. Anti-parkinsonian agents should not be given prophylactically. Tardive dyskinesia is the most serious long-term side effect of the neuroleptic medication and is felt to be the result of the production of hypersensitive dopamine receptors in the brain. There is as yet no truly satisfactory treatment for the condition; therefore, prevention is crucial. This involves decreasing the number of subjects at risk by using neuroleptics only when clearly indicated and in the lowest dose possible.[21,22]

Summary

In this paper an update on schizophrenia has been presented. Through an understanding of the principles of diagnosis and management, the primary care physician can play a key role in early detection and appropriate referral in the diagnostic workup and can participate in the maintenance programs for the prevention of relapse. In many ways, the treatment of schizophrenia represents a model for treatment of chronic illness and can be a very rewarding experience for the interested physician.

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Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
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Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	MEDRYSONE	METYROSINE
Category:	Corticosteroid	Antihypertensive
Brand Name:	HMS Liquifilm, Allergan	Demser, MSD
Generic Name:	Medrysone	Metyrosine
Dosage Forms:	Suspension (ophthalmic)	Capsules

	COUMADIN	KEMADRIN
Category:	Anticoagulant	Parkinsonism
Brand Name:	Coumadin, Endo	Kemadrin, BW
Generic Name:	Sodium Warfarin	Procyclidine
Dosage Forms:	Tablets, Injection	Tablets

Springs in Their Feet

RICHARD J. NOVEROSKE, M.D.
Evansville

"Why do they run so fast and jump so far?" I've often wondered when watching black athletes. And others have, too. The common explanation is that "they have springs in their feet." And with a laugh and a sense of puzzlement the question is once again set aside—until the next basketball game or track meet.

I have wondered about this question for years. I haven't seen any consistent variation between the x-rays of the feet of black, white, and yellow race athletes or the general population. I have heard that there is often more posterior prominence of the calcaneus in blacks. And I could see that this might change the lever ratios of the third-class lever that the weight-bearing foot is, but it didn't seem to be enough to explain the superiority of the blacks at running dashes and jumping high or long.

I x-rayed the family cat because of a limp, and I was struck by not only the posterior prominence of the calcaneus, giving more of a lever arm from the insertion of the heel cord to the center of the ankle joint, but I also was impressed by the long length of the metatarsals. I wondered if there could be some significant difference in metatarsal length that I had missed in blacks.

I invited my friend, Rev. Otis Garrett, Jr., a man now middle-aged and a year older than me, but a man who had been a fine, fast black athlete in his youth. He had run dashes against motorcycles from a standing start and had repeatedly won against them. He usually ran barefooted then. And as I was filming him, he asked if I found any cinders in his feet from years ago. I didn't.

He knew what I was trying to answer. When I compared the x-ray films of his feet with mine, I found no change. The metatarsals and the other lengths appeared about the same.

Then Reverend Garrett said, "You know, Doc, all of us Garretts run pigeon-toed." And he showed me what he meant, by turning in his foot, into what we call varus in medicine.

Here was a difference. This man who had no college education was an observer and an athlete himself. He had worked with and watched many animals run. He told me how the running horse turns its rear hooves out at the completion of a stride. He told me of the speed that he had as a black boxer. Many boxers are black of course.

After I listened to him, the answer to this question of speed—more speed in the black race—began to come to me. They start their stride pigeon-toed, or in varus, but they finish the stride with the foot straight ahead—if they're successful and fast. On further questioning, Otis indicated that the black runners who didn't straighten out their feet, didn't win. It takes work to turn the foot under load and change the lever ratios of the third class lever, but the work pays off in faster acceleration.

I came home from the office and showed my family and friends what Otis Garrett had told me, and how it was the secret to why the blacks can run and jump so well. Against the lines of the tile floor, I showed how the effective length of the lever arm part of the foot from the center of the ankle joint to the metatarsal heads is shortened by about 2 cm by turning the foot into varus (pigeon-toed).

By starting the stride when acceleration is zero—speed or velocity is constant, on a plateau, with the foot turned in—force is increased at the expense of speed in this third class lever. This increased force creates more acceleration as the runner starts to move up from one plateau to the next in velocity. (It's like using a pry-bar, a first class lever; one shortens the distance between the load and the fulcrum as much as possible to get more force.) Early in the acceleration effort, the runner, although moving, is on a plateau of velocity and has more inertia to overcome; at this point he needs more force. The black athlete gets it by turning in his foot at this point.

A split-second later, when force is not as necessary as speed is, the black athlete straightens out his foot, under load, and gains about 2 cm or so in the effective length of the front lever arm of his foot and gains speed.

It's an automatic transmission—that's what the black athletes have that makes them so superior at running and jumping—a built-in automatic transmission.

There is further evidence for this answer. The turning-in of the lower limb to get varus or a pigeon-toed position can take place anywhere—at the foot, knee, or hip. Most of it appears to take place in the hip.

Technologists who work with me and

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FIGURE 1: An x-ray film of a pet cat's rear limb. Note the long lever arms both interiorly and posteriorly from the weight bearing point in the center of the ankle joint.



FIGURE 2: Lateral view of the foot of Rev. Otis Garrett, a fine black athlete when he was a young man. Detail of the toes is lost because of overexposure of the x-ray film, but toes are all present and functional in this active man.



FIGURE 3: Lateral view of RJN, a 50-year-old non-athlete. A calcaneal spur, asymptomatic, is present. No essential difference when comparison is made with the lateral view of the former black athlete's foot.

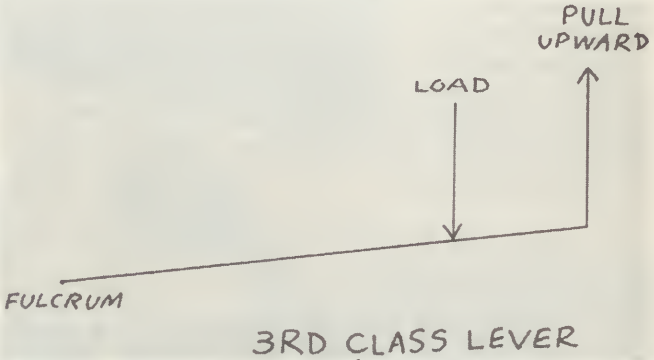


FIGURE 4: Diagram of a third class lever. The foot and ankle bear weight as a third class lever. The load comes down the leg into the ankle joint. There is upward pull through the Achilles Tendon or heel cord. The fulcrum is the shifting contact at the heads of the metatarsals through the toes to their tips. Other common examples of a third class lever are a wheelbarrow or a trapdoor.

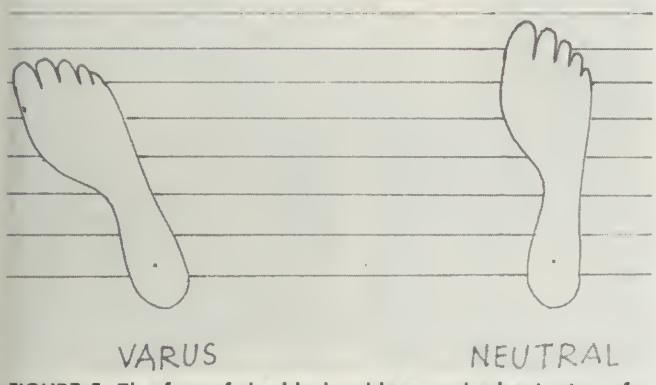


FIGURE 5: The foot of the black athlete at the beginning of a stride is turned into varus (pigeon-toed), and this shortens the effective anterior limb of the third-class lever by about 2cm. This gives the black athlete a large advantage at the beginning of the effort needed to accelerate to a higher speed; he is in "low gear" when he needs the most force to overcome the inertia present at the completion of the prior stride by the other foot. By turning the foot under load with his strong gluteus maximus muscle, he shifts to "high gear" late in the stride when the need for speed is more, and the need for force is less.



FIGURE 6: Velocity increases step by step with each stride of the runner. Were we looking at a multi-cylindered engine, or a turbine, the increase in velocity would be a smooth curve. The runner, having reached a plateau of velocity from the prior stride, must accelerate to reach a new height of velocity. The gear-shift principle of running "pigeon-toed" at the beginning of each stride is most helpful.

others have told me about the prominent buttocks of the black basketball players and other blacks. I've observed them, and it appears to me to be due to enlargement of the gluteus maximus muscles. This is the muscle that provides most of the muscle mass of the buttocks, and it is a powerful lateral rotator of the hip. It would take a strong muscle to turn this third class lever under load so as to change the leverage ratios. This muscle appears to be it; the one that does the work of the automatic transmission. (An automatic transmission is merely a device to change lever ratios—gears and varying sizes of wet clutches are simply applications of the lever principle.)

The more posterior prominence of the calcaneus in black athletes that is generally accepted, may be a device to put the load that comes down the leg into a more neutral position.

Some say that cats turn their rear feet in as they start their running stride. Otis has observed that horses turn their hooves out at completion of their stride with the rear feet.

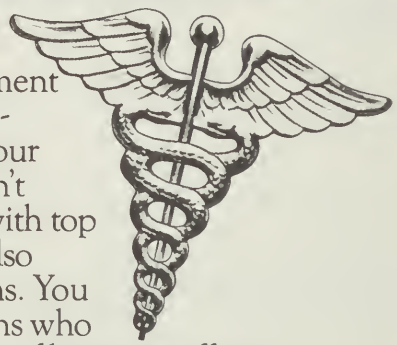
Both dancers and Otis also have stressed the need in dancing and running to have as little fabric or material between the feet and the ground as possible. The coefficient of friction may be a factor. The increased tactile sensitivity also may be a factor for better performance. Many athletes have run and jumped exceptionally well in shoes so worn out that they were almost running in their bare feet.

There are other factors—such as a good set of heart and lungs—that are necessary to be a successful athlete. And I don't wish to try to name them all here. Others are better qualified than I.

But I do think that a leading cause for the outstanding performance of black athletes is their running pigeon-toed and using strong gluteus maximus muscles to turn their feet under load so as to change the lever ratios in the running foot and get improved mechanical advantage. They have an automatic transmission. They have a racial superiority in running and jumping. You need only look at a first class basketball game and count the number of black and white players. Usually there are about 75% or more black players on the pro teams. Hitler had difficulty in accepting this racial superiority at the 1936 Berlin Olympic Games when Jesse Owens turned in his remarkable dash and jump performances. But it's a fact of life.

Whether it can be taught by coaches to white and yellow race athletes, and whether they can learn it, is interesting to speculate on.

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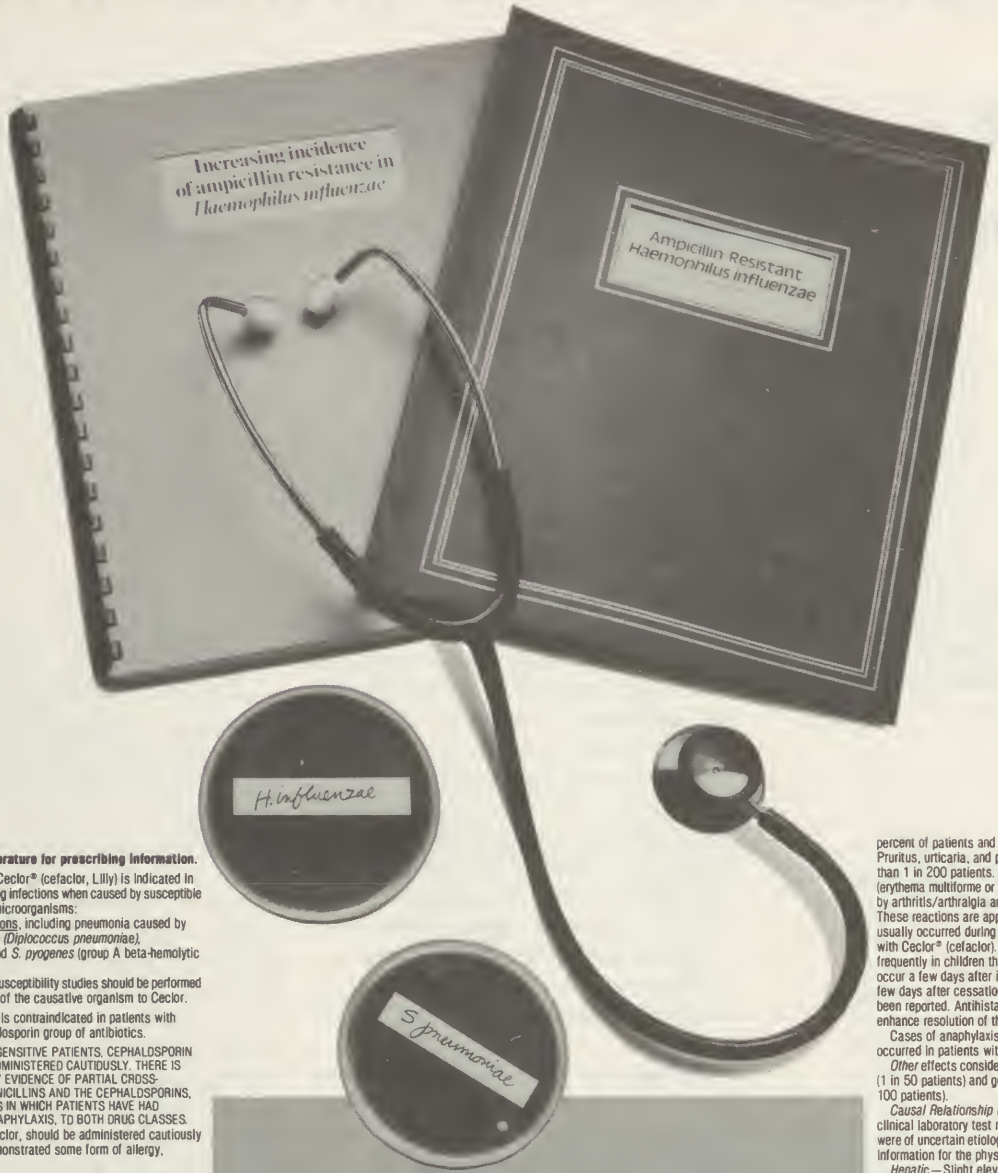


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Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

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Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coomb testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

As with other broad-spectrum antibiotics, colitis, including rare instances of pseudomembranous colitis, has been reported in conjunction with therapy with Ceclor.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor® (cefaclor). Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [100281R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

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200086

Nadolol as Adjunctive Therapy in Hyperthyroidism

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THE CARDIOVASCULAR stress of hyperthyroidism is probably the foremost risk factor in affected patients. The hyperdynamic circulatory state appears to be due to an increased metabolic rate of all tissues, direct thyroid hormone effects at the cellular level and enhanced activity of circulating catecholamines.[1,2] The levels of circulating catecholamines in toxic patients have been found to be both normal and elevated. A more consistent finding has been an increase in beta-adrenergic receptors in myocardial and other cardiovascular tissues.[3]

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Beta-adrenergic blocking drugs have become useful in the adjunctive therapy of hyperthyroid states. These drugs relieve cardiovascular, neuromuscular and psychiatric symptoms induced by thyrotoxicosis.[4] They also may prevent protein breakdown as well as inhibit deiodination of thyroxine to triiodothyronine.[5] Triiodothyronine is the most active form of thyroid hormone, and blocking this extrathyroidal conversion is a useful action. Further use of this class of drugs does not alter the accuracy of thyroid blood tests such as radioactive iodine uptake and serum thyroxine.[6]

Because of their favorable effects, beta-adrenoceptor antagonists have been used to prepare patients for surgery, treat thyroid storm, and as adjunctive therapy in patients receiving therapeutic radioiodine.[7]

The prototype drug in this field has been propanolol which, in divided doses of 40 to 160 mg a day, has been found to be effective.[8] In hyperthyroidism, hepatic metabolism of drugs is increased so frequent doses of this short-acting beta-blocker are required. A problem of patient compliance is possible, and effective blood levels through the evening are not assured.[9] To improve patient compliance and obtain good clinical effects during the early morning hours, a longer acting beta-blocker, nadolol, was used as adjunctive therapy in 16 patients receiving therapeutic radioiodine as the primary definitive treatment.

Methods and Results

Sixteen consecutive hyperthyroid patients were initiated on nadolol in preparation for therapeutic doses of radioiodine. After being clinically stabilized over a two- to four-week period, they received a potentially ablative dose of radioiodine in a range of 7.5 to 10 millicuries. The dosage administered was directly related to the size of the gland and its percentage of radioiodine uptake. The basic figures followed were those of the clinical response of the patient while on the beta-blocker.

The average single dose of nadolol required for clinical stabilization was 126 milligrams, with a range of 80 to 240 milligrams. The average duration of adjunctive therapy to radioiodine was 17 weeks, with a range of eight to 44 weeks. The average resting pulse prior to therapy was 107 beats per minute, with a range of 88 to 128 beats per minute. After appropriate administration of nadolol, the pulse rate fell to 74 beats per minute on the average, with a range of 62 to 90 beats per minute. Blood pressure prior to nadolol averaged 163 mm/Hg on systolic determinations, with a range of 130 mm/Hg to 210 mm/Hg. The pretreatment diastolic levels averaged 95 mm/Hg, with a range of 60 to 130 mm/Hg. After nadolol the systolic pressure fell to an average of 132 mm/Hg, with a range of 110 mm/Hg to 160 mm/Hg. The post-nadolol diastolic pressure fell to 65 mm/Hg, with a range of 45 to 90 mm/Hg. The

TABLE

#	Age	Sex	Diagnosis	Initial Serum Thyroxine*	Initial 24-Hour Radioiodine Uptake**	Initial Resting Pulse	Before Nadolol BP	Severity of Symptoms
1	53	M	GRAVES DISEASE	21.5 ug/dl	54%	96	150/100	3+
2	67	F	Toxic Multi-nodular goiter	19.1 ug/dl	2h—uptake 29% (WNL—10%)	94	170/80	3+
3	43	F	Toxic goiter	20.5 ug/dl	85%	120	130/90	4+
4	31	F	Toxic goiter	20 ug/dl	64%	106	160/70	3+
5	36	M	GRAVES DISEASE	18.5 ug/dl	60%	118	140/90	2+
6	40	F	Toxic goiter	19 ug/dl	49%	105	145/95	1+
7	35	F	GRAVES DISEASE	18 ug/dl	47%	126	155/60	2+
8	52	F	GRAVES DISEASE	23.8 ug/dl	100%	100	180/75	4+
9	50	F	GRAVES DISEASE	30 ug/dl	70%	128	180/80	3+
10	23	F	GRAVES DISEASE	17.6 ug/dl	76%	110	135/65	3+
11	50	F	Toxic goiter	24 ug/dl	97%	98	165/70	3+
12	36	F	GRAVES DISEASE	22.3 ug/dl	63%	88	180/70	3+
13	42	F	Toxic goiter	20.5 ug/dl	85%	120	210/130	4+
14	47	F	Toxic goiter	25.1 ug/dl	68%	102	190/100	3+
15	53	M	GRAVES DISEASE	21.5 ug/dl	2h—uptake 29%	107	180/110	2+
16	35	F	GRAVES DISEASE	12.3 ug/dl	36%	96	140/60	2+

*—WNL 4-11 ug/dl
**—WNL 10-30% in 24 hours
***—To closest 5 MM Mercury

#	Resting Pulse	After Nadolol Initiated BP	Severity of Symptoms	After Effects of Iodine and Nadolol Serum Thyroxine	Therapeutic Radio-Discontinued Resting Pulse	Peak Daily Divided Dosage of Nadolol	Duration of Nadolol Therapy
1	82	130/70	1+	7.2 ug/dl	60	80 mg	24 weeks
2	86	130/60	1+	10 ug/dl	82	80 mg	10 weeks
3	74	125/85	1+	7.4 ug/dl	86	120 mg	12 weeks
4	68	110/70	1+	8.1 ug/dl	60	60 mg	11 weeks
5	66	120/80	0	8.5 ug/dl	72	120 mg	23 weeks
6	86	130/55	1+	9.5 ug/dl	80	160 mg	10 weeks
7	62	125/65	1+	7.9 ug/dl	86	80 mg	36 weeks
8	71	135/80	1+	9.2 ug/dl	78	120 mg	44 weeks
9	88	140/60	1+	6.6 ug/dl	92	120 mg	14 weeks
10	64	130/70	1+	10.8 ug/dl	86	160 mg	12 weeks
11	67	155/75	1+	11.2 ug/dl	78	80 mg	9 weeks
12	90	130/ 50	2+	12.3 ug/dl	86	160 mg	9 weeks
13	79	150/90	1+	4.9 ug/dl	60	240 mg	12 weeks
14	71	115/45	1+	10.5 ug/dl	68	120 mg	8 weeks
15	66	160/95	1+	8.2 ug/dl	85	160 mg	33 weeks
16	64	125/65	1+	6.5 ug/dl	71	160 mg	11 weeks

average mean arterial pressure fell from 117 mm/Hg down to 87 mm/Hg.

The study group consisted of 13 women and three men. The average age of the group was 32.6 years, with a range of 23 to 67 years old. (Refer to *Table*)

Discussion

To avoid an unsatisfactory clinical response, the drug dosage must be raised incrementally and adjusted based on the clinical findings.[10] It is a good indication of adequate beta-blockade that none of the patients had a thyroid storm subsequent to the administration of therapeutic doses of radioactive iodine. Nadolol was found to be an effective, safe agent for ameliorating many clinical features of hyperthyroidism until the primary mode of therapy became effective. It has advantages of twice-a-day dosage and a long serum half life.[11] Propanolol usually is given in four divided doses each day.[12]

Occasionally, patients reported a bradycardia, which they found by checking their pulses at home. In no

instance was this associated with any other symptoms beside anxiety. They received reassurance that the low pulse of 50 to 60 beats a minute was expected and good for them. In addition, no patient reported any classical symptoms of drug allergy such as skin rash or fever. The relative absence of side effects may have been due to the short period of treatment and masking of drug effects by the intense state of thyroid overactivity.

The doses used are probably higher than for other indications for nadolol such as hypertension. We did taper the patients off the drug gradually over three to six weeks in an effort to avoid any rebound phenomenon of hypertension, angina or tachycardia.[13]

Summary

Nadolol is a clinically effective adjunctive therapy to therapeutic radioiodine in the management of hyperthyroidism. Preliminary results with atenol also have been encouraging, although it does not penetrate the blood brain barrier effectively in younger patients.[14]

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Indianapolis

IN SEPTEMBER 1981, the government announced the selection of three scientists to evaluate Upjohn's Depo-Provera® as a birth control shot. They are to recommend whether the United States should join more than 80 other countries in permitting its use.[1]

Depo-Provera has been used as an injectable contraceptive all over the world since 1959.[2] However, our government has taken the attitude that our women are smart enough to take birth control pills; they don't need the shots. The Upjohn Company has undertaken two expensive court appeals to upset the governmental ban against advertising the drug for conception control, without success. It is approved as an adjunct in the control of inoperable endometrial or renal carcinoma.[3]

In late 1979, our social workers from an adjoining county had a problem: The 16-year-old sister of an AFDC recipient arrived in Indiana from the deep South, and she was both retarded and pregnant. We asked the Charity Committee of our Community Hospital for free care for the girl and terminated the pregnancy. Since she could not count to 20, she could not use birth control pills. Most users of IUDs in my practice had been demanding their removal because of cramping and bleeding and infection.[4] We injected her with 400 mg of Depo-Provera; since that time, she has returned at six-month intervals for four additional shots, and she has remained non-pregnant. Her only side effect is complete amenorrhea for more than a year. Our experience with Depo-Provera has now increased to include 124 patients, ranging in age from 13 to 35 years—and we have had no pregnancies.

Chemically, Depo-Provera is medroxyprogesterone acetate suspension. It is a derivative of progesterone, active by parenteral and oral routes. When given to women with adequate endogenous estrogen, it creates a mild pseudopregnancy that suspends the hormonal mechanism in the second half of the normal menstrual cycle, inhibiting secretion of pituitary gonadotropin and preventing follicular maturation and ovulation.[5]

Reports from other countries show a pregnancy rate of one in 300 to 400 woman-years of use—certainly competitive with birth control pills, which allow one pregnancy for each 100 woman-years of use.[6] Side effects are few; since it is pure progesterone, it avoids the headaches, leg cramps, and nausea associated with even the low doses of estrogen in birth control pills.[2] Patients on Depo-Provera can expect a very irregular menstrual pattern; ovulation is the normal trigger-mechanism for menses, and since they do not ovulate, breakthrough bleeding can occur at any time. If it is heavy or prolonged, it can be helped by estrogen supplements.

Some women think they must have regular periods to get rid of poisons. We tell them that the boys don't have to bleed, so why should the girls? Absence of menses also makes them fearful of pregnancy; many of our patients have requested pregnancy tests, which have been uniformly negative.

Our patients range in age from 13 to 35 years; two were only 13 and had already been pregnant. Depo-Provera does not interfere with growth hormone or thyroid hormone; it does not suppress lactation in nursing mothers. A third to a half of very young girls have moderate to severe dysmenorrhea—and they all think they can control their bodies in the sexual sphere. Depo-Provera could reduce painful periods as well as the terrible toll of more than a million pregnancies per year in teenagers.

Acceptance of the method is at least equal to that of other temporary control measures. Among 19,000 women in Thailand, the shots were chosen by 70%. Not all women are happy with them; one of our patients complained of a 15-pound weight gain within three months, and another "felt terrible" because of amenorrhea and said she would not be a guinea-pig again. She is now depending upon will-power for conception control.

Return of fertility after stopping the shots is no problem. One report of 135 women who decided upon another birth showed that 82% became pregnant within 14 months. Regular menses return in all women from less than six months to more than 18 months, regardless of how many shots are given.[5] The occasional young woman who chooses sterilization for birth control

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and later changes her mind could have used the shots indefinitely instead of making some hapless surgeon work for three hours under the microscope to reanastomose her tubes.

Reasons for discontinuing the Depo-Provera, from a South African report, include hypertension with diastolic of 110, weight gain of more than seven kilos, suspected malignancy, thrombosis or embolism, severe depression, jaundice, and uterine bleeding not controlled by treatment.[2]

If it does such a good job, why isn't it used for those women who cannot or will not take the pill? Our Planned Parenthood clinics still use the IUD as the backup for the pill, in spite of a high percentage of unsatisfactory results. A study of 17,000 IUD users showed that acute PID was 10 times more common, and chronic PID 2.5 times more common than in non-users. Chronic pelvic inflammatory disease was four times more common in past users of IUDs.[4]

Conclusion

We intend to continue producing mild pseudo-pregnancy in young women and girls to protect them from the real thing. The prolonged amenorrhea is only a nuisance, and it can be a boon to the severely retarded, who cannot handle menses well.

Acceptance by doctors and clinics will be slow; many people appear to think the FBI will haul them off to federal prison if they use the drug. The Government may approve it; so far, it has taken the attitude that the Upjohn Company should be prohibited from selling the product for birth control in other countries, since it is not approved for such use here.

There should be little argument that we need a dependable injectable contraceptive. Until better ones are available, Depo-Provera warrants much wider use.

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Impactions and Constipation in Children

Clinical Notes

RICHARD H. APPEL, M.D.
Indianapolis

IMPACTIONS or constant overloading of the rectal pouch are a different problem in children than in adults. Because the child is less uncomfortable, due to less sensitivity in the pouch, he is less apt to complain or to demand help. And he will often consider play and other activities more important than defecation. I have seen cases of impaction of several months duration.

The persistence of frequent soiling of clothes has only been seen in children, and the child must be very embarrassed by the ensuing odor, the jibes of other children, and the wetness which is constant. There are three approaches to the problem, namely, mechanical, drugs and diet, and psychotherapy. All should be aimed at establishing a regular bowel habit. Of these, the mechanical is by far the best. Psychotherapy is worthless.

Correspondence: 122 E. 61st St., Indianapolis, Ind. 46220.

That children are less sensitive to pain stimuli in the rectal area is well known to those who have occasion to operate or manipulate in this area. Fistulectomies, sigmoidoscopies, hemorrhoidectomies, and digital manipulative activities are tolerated with much less discomfort than in adults. As a result of this low sensitivity, children can be relieved of an impaction with much less pain than in an adult.

As a rule, the factors involved in the formation of impactions, or chronic overloading of the rectal pouch with feces, can best be corrected by a mechanical approach, as compared to drugs or diet. The diagnostic and therapeutic tool is a well greased, rubber-gloved, right index finger, together with plain tepid water lavages.

The aim of therapy is to obtain a persistently empty rectal pouch, and the return to normal of muscular contractility of the pouch. Constant and excessive over-distension of the muscles of the pouch tends to paralyze these muscles, and cause flabbiness and poor function in contractility. This weakness of contractility results in poor emptying ability and diminution of the urgency reflex.

That the urgency impulse can vary with amount of pouch contents can be proved by a simple experiment. Insert a small inflatable balloon into an empty, normal pouch. Inflate slightly, and an expulsive impulse develops, but disappears with the passage of enough time. Add more air and the result is similar. This action can be repeated until the pouch is fully distended, with like results. The three basic factors in normal functioning of defecation are pouch strength, urge to defecate, and response to the urge. These are combined with regularity.

One cannot expect a small child to respect the need for regularity, so it is necessary to supervise his activities. The temptation to ignore "nature's call" when in a hurry to dress, to play, etc., is apt to result in neglect of it. If a child seems to be hurrying the time given to evacuation, a simple digital examination can give the answer.

It is interesting in that it has never been necessary to administer an anesthetic to a child to remove an impaction, in contrast to adults. Knowing that pain is minimal in a child, crying can be helpful in dislodgement.

A mechanical approach means simply that the rectal pouch is thoroughly emptied, daily, by the use of digital manipulation and lavages. The act is best performed about an hour after breakfast. If there is a time conflict, it can be moved up to the cessation of breakfast. Procedure is simple. The first step consists of a visit to the stool for about 15 minutes. The child is instructed to flex the body at the waist, until the chest is near the knees. Then to use moderate strain, but intermittently.

The child is then placed on his left side on a bed, or the equivalent. A gloved, well greased finger, is then gently inserted to determine if stool is present. If stool is still present, breaking up of the stool is accomplished by pressing the stool against the sacrum and fracturing it, with the segments removed by lavage, using a soft rubber syringe and tepid tap water to wash out the fragments of dislodged stool. Gentle pressure may be applied over the sigmoid area, in order to bring down stool from the sigmoid into reach of the inserted finger. Digital examinations are made

after every flushing until feces are no longer felt. This procedure should be followed daily, until the child presents an empty pouch, after a voluntary bowel movement. Check-ups should be used after normal bowel habits have been established, to determine if good function has been established.

It is important to recognize that the rectal pouch is the organ of expulsion, together with the levators, and not a depository, which in the function of the sigmoid. During sigmoidoscopies, it is frequently noticed that material will descend from above, when the recto-signoid ring is relaxed by the tip of the scope. If good function can be maintained into adulthood, undesirable constipation may be avoided in later years, for the muscles of expulsion are in better strength from use.

The two worst forms of therapy are those of psycho-therapy and physical punishment. Psycho-therapy cannot increase the diameter of the outlet, soften a hard stool, or strengthen the muscles of the pouch. However, it can delay effective action, and perhaps a feeling of guilt in the household. I remember one child who was treated for soiling, in a university guidance clinic, for several weeks without benefit. After a history and examination by a private practitioner, the mother was instructed to do a digital examination. The answer to the child's problem was felt. No one in the clinic had done this. Another mother called after the initial and final visit; although the child was not cured, she said she would rather do the flushing process than clean the clothes.

Diet should be given some consideration. Except for idiosyncrasies, the worst offenders are milk, then cheese and chocolate. Cathartics are banned, except for unusual conditions. Physical punishment is barbarous and futile. Instances where physical punishment has been applied can correctly be called child abuse. Many parents have felt very sheepish when the cause and cure have been demonstrated to them.

Summary

Fecal impactions and excessive constipation in children can be a source of embarrassment and discomfort, but can be cured. The best approach to the problem is that of diet and mechanical means. The poorest is that of drugs, psycho-therapy and physical punishment. The methods used in achieving a good bowel habit in children may have influence on the bowel habits as adults, and lessen the chance of the constipation about which adults complain. Only the drug companies would lose.

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CONTRAINDICATIONS

Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

WARNINGS

The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

PRECAUTIONS

General

Symptomatic relief should not delay definitive diagnoses or treatment.

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If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

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Anusol-HC is not for ophthalmic use.

Pregnancy

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Pediatric Use

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

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000,000 hospital atients with ifections.[4] Many are ano-eic and may have a markedly eiced food intake. Supplements n often provided as a prudent asure because the vitamin sta- of critically ill patients cannot eadily determined.[3]

The incalculable millions on calorie-reduced diets. Patients ingesting 1000 or fewer calories per day could be at high risk because this intake may not supply most nutrients in adequate amounts without supplementation.[5]



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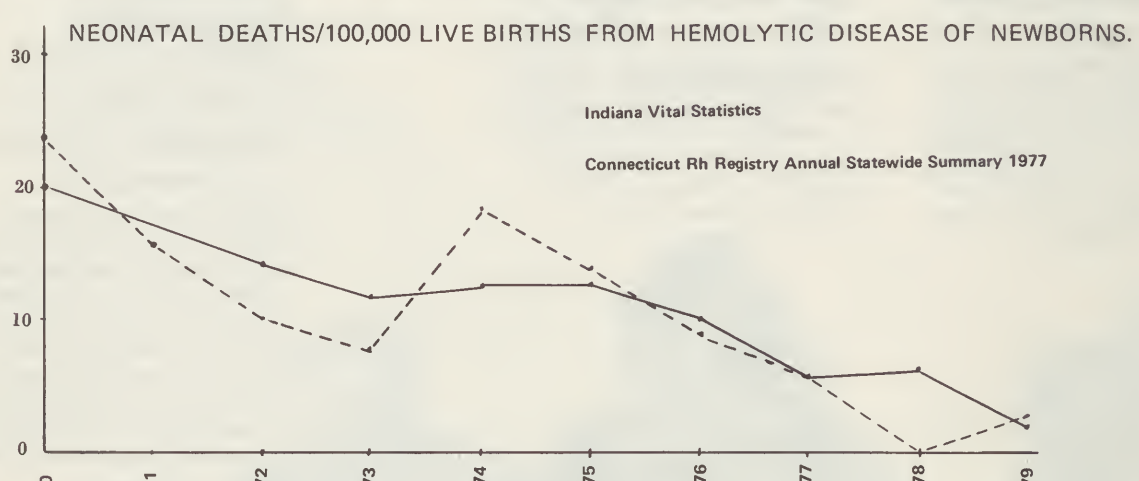
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THE MULTIVITAMIN/MINERAL FORMULATION

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PUBLIC HEALTH NOTES



Rh_o(D) Immune Globulin, first introduced for general use in 1968, has been dramatically effective in the prevention of Rh sensitization and the attendant complications. The need for exchange transfusions to protect unborn Rh_o(D) positive fetuses of Rh_o(D) negative mothers has greatly diminished and obstetricians see few sensitized patients, to the point that OB residents receive limited or no experience managing this problem.

Introduction of Rh_o(D) Immune Globulin has presented the means to prevent Rh sensitization and to completely eradicate its fatal complications. Analyses of the incidence of hemolytic disease of newborns bears this out.

Physician usage of Rh_o(D) Immune Globulin in Indiana has resulted in a decreased rate of fatal complications in newborns (hemolytic disease of newborns) comparable to states that implemented statewide programs to insure optimal utilization of the immune globulin *(chart)*.

Connecticut passed legislation in 1969 to establish a statewide program for the prevention of Rh disease and allocated money to provide the immune globulin to indigent women. In 1977, Connecticut reported a dramatic decrease in the perinatal deaths due to Rh disease attributed to "the establishment and administration of a statewide program for the prevention of erythroblastosis. . ."

During this same period, 1969-1977, Indiana, without the costs of a bureaucratic administered program, experienced the same dramatic rate of decrease in the incidence of death for hemolytic disease of newborns. Connecticut calculated that 99.6% of the women eligible for immune globulin received it in 1977. Indiana may claim a similar high rate of utilization from comparison of these results. It does not take an economist to figure whose cost benefit ratio is better.

Review of the indications for administering Rh_o(D) Immune Globulin to unsensitized Rh_o(D) negative women is appropriate since failure to administer the globulin may lead to sensitization:

1. Delivery of an Rh_o(D) positive infant whose direct antiglobulin test (Coombs) on cord blood is negative, or positive due to an antibody other than Rh_o(D).
2. Induced or spontaneous abortion.
3. Transfusion of Rh_o(D) positive blood into an Rh_o(D) negative patient.
4. Amniocentesis.
5. Antepartal hemorrhage.
6. Ectopic pregnancy.

The Rh_o(D) Immune Globulin available for treatment in the United States to date is for intramuscular injection only. Since it provides passive immunity to the mother against sensitization, it is essential to treat the mother with each subsequent delivery of an Rh_o(D) positive child. The globulin should be injected within 72 hours of delivery to prevent the development of a primary immune response.

Failures to suppress Rh immunity do occur in spite of treatment. There are two major reasons for failure:

a) Sensitization may have occurred during the pregnancy from fetomaternal hemorrhage, particularly after 20 weeks gestation. Consequently, the post-delivery injection may be too late. This is responsible for the majority of failures.

b) Massive fetomaternal hemorrhage at birth may not be adequately suppressed by a single dose of globulin. Other sensitizations may occur in women undergoing abortion, either spontaneous or induced, who do not receive immune globulin.

The marked reduction in the infant mortality from complications of Rh immunity is commendable and attests to its high rate of utilization by Indiana physicians. To completely eliminate this as a cause of infant wastage, greater vigilance must be given to prevent gaps in treatment and to treat appropriately women who have antepartal or massive peripartal hemorrhage.

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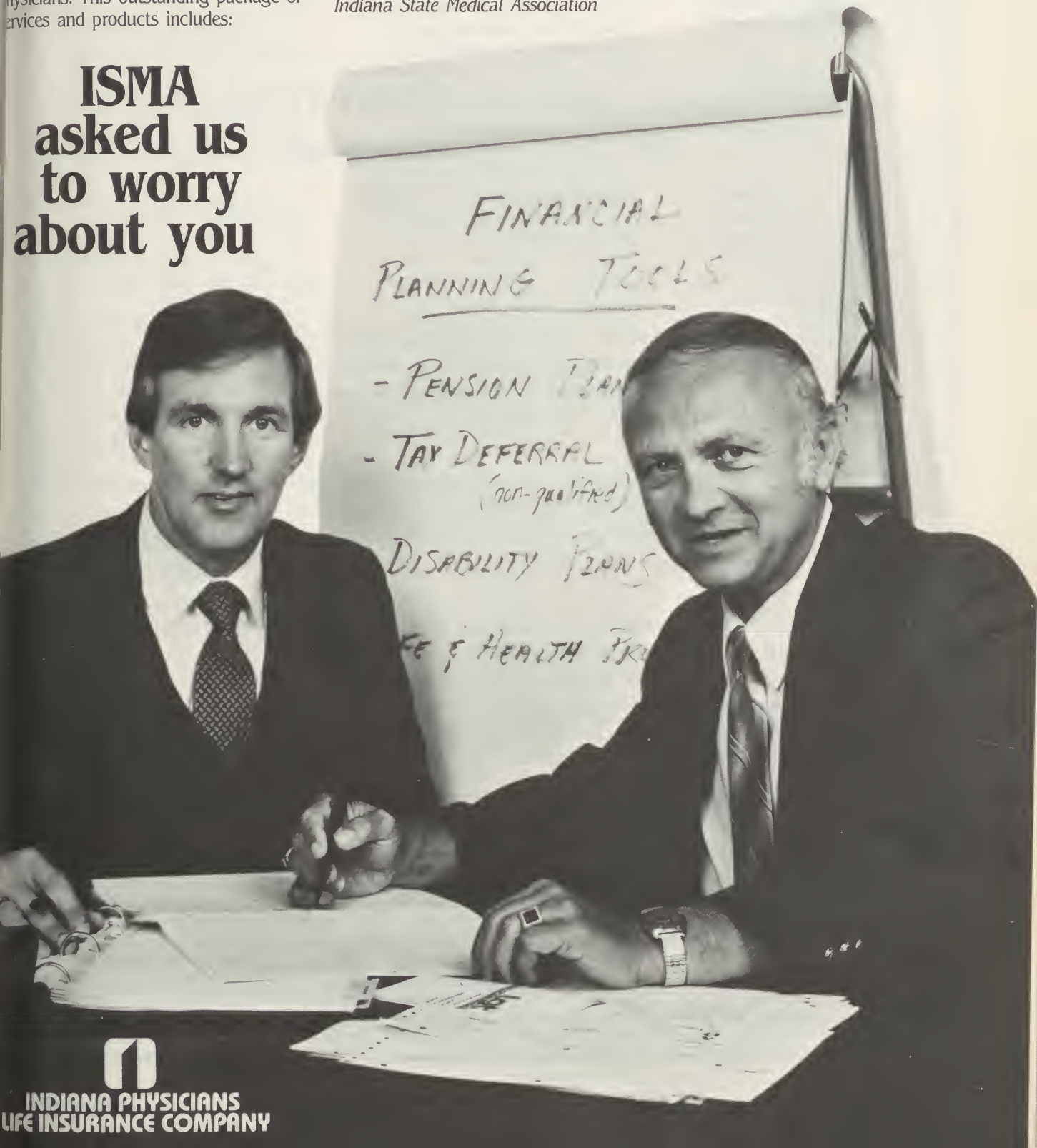
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CME QUIZ

Schizophrenia

CONTINUED FROM PAGES 517-521

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. It is estimated at present that_____.
   a. 30-40% of schizophrenic patients will end up in the state of stable chronicity.
   b. 30% of schizophrenic patients will end up in the deteriorated vegetative-like terminal state.
   c. 80% of schizophrenic patients fully recover.
   d. all schizophrenic patients run a progressively deteriorating course.
2. Upon discontinuation of medication it has been estimated that _____.
   a. one in four schizophrenic patients will decompensate within one year.
   b. two of three schizophrenic patients will decompensate within one year.
   c. one in five schizophrenic patients will decompensate within one year.
   d. all schizophrenic patients will decompensate within one year.
3. Recent family studies have suggested that _____.
   a. schizophrenogenic mothers cause schizophrenia in their children.
   b. the likelihood of developing schizophrenia if a sibling has schizophrenia is 33%.
   c. exposure to expressed, critical, negative feelings increases the patient's likelihood to relapse.
   d. if both parents have schizophrenia all the children also will have the disorder.
4. The most persuasive evidence of a genetic etiology for schizophrenia is found in _____.
   a. studies of increased familial incidence.
   b. studies of adopted-away children of schizophrenic mothers.
   c. comparisons of concordance rates of monozygotic and dizygotic twins.
   d. none of the above.
5. At present in the United States it is estimated that _____.
   a. there are one million patients suffering from schizophrenia.
   b. there are ten million patients suffering from schizophrenia.
   c. there are five million patients suffering from schizophrenia.
   d. there are two million patients suffering from schizophrenia.
6. All of the following statements are true about schizophrenia except:
   a. There is no evidence of the differential effectiveness of antipsychotic agents in the treatment of schizophrenia.
   b. Differing types of neuroleptics do have varying side effects.
   c. The most common cause of treatment failure is inadequate dose of drug.
   d. Because of the ubiquity of parkinsonian-like side effects, antiparkinsonian drugs should be given prophylactically.

CONTINUED ON PAGE 554

July CME Quiz Answers

Following are the answers to the CME quiz that appeared in the July 1982 issue of THE JOURNAL: "Genetic Treatment," by David J. Goldstein, M.D.

1. d	6. d
2. a	7. a
3. b	8. b
4. a	9. d
5. c	10. c

Answers sheet for Quiz: (Schizophrenia . . .)

1. a b c d	6. a b c d
2. a b c d	7. a b c d
3. a b c d	8. a b c d
4. a b c d	9. a b c d
5. a b c d	10. a b c d

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing lable)

Signature

To be eligible for this month's quiz, send your completed, signed application before Sept. 10, 1982 to the address appearing at the top of this page.

WILLIAM M. DUGAN, JR., M.D.
Clinical Oncology Center
Methodist Hospital of Indiana, Inc.

New information from
Indiana Division
American Cancer Society, Inc.
4755 Kingsway Dr., Suite 100
Indianapolis 46205
EVERY PHYSICIAN'S OFFICE—
A CANCER DETECTION CENTER

CANCER CORNER

The following are some scientific meetings planned for the fall and winter of 1982-1983 that you might like to attend. They are:

Saturday, Sept. 18, 1982

Parkview Oncology Center, Ft. Wayne, Indiana. **Common Cancer Problems for Primary Care Physicians.** This meeting will address new developments in cancer care and is designed for a general medical audience. It is approved for 5½ hours of Category 1 credit for AMA and the American Academy of Family Practice. The cost is $25 for physicians and $10 for other health professionals. This cost includes registration, breakfast, lunch and a reception. For more information, contact John Crawford, M.D., Parkview Oncology Center, 2500 E. State, Ft. Wayne, Ind. 46805.

Saturday, Sept. 25, 1982

The Indiana Division of ACS, Annual Meeting will be held in Brown County. The distinguished volunteers who have been requested to be the general session presentors following a luncheon and banquet are Dr. Saul Gusberg (OB/GYN) and Dr. Benjamin Byrd (surgeon), chairman of the National Breast Cancer Task Force.

It has been suggested that the format of this year's meeting be changed from previous years. Rather than hold a one-hour session in the morning and repeat it in the afternoon, it was suggested that two hours be allotted for a consecutive session in the afternoon until 4 or 4:30 p.m. Also, in lieu of the Professional Education Workshop, it was suggested that Drs. Gusberg and Byrd be asked to be the main speakers for the scientific assembly in the afternoon. This year's suggested topic is Breast Cancer.

Dr. Huber is assisting in arranging for Continuing Medical Education credits in order to make the meeting more worthwhile for physicians who are not involved with ACS as volunteers. For more information, contact your local ACS Office.

Sept. 8-15, 1982

XIII International Cancer Congress. Sponsored by the International Union Against Cancer, Seattle, Wash. Inquiries should be directed to Dr. Edwin A. Mirand, Secretary-General, 13th International Congress, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, N.Y. 14263.

Sept. 17-18, 1982

Symposium on the Fundamental Problems in Breast Cancer. Organized by the Breast Unit, Cross Cancer Institute, and Division of Oncology, University of Alberta. Goal: To examine in depth some basic problems in understanding the disease process and its treatment. Topics: Etiology of breast disease, natural history of breast cancer endocrine control mechanisms, host-cancer interactions, laboratory studies and animal models, diagnosis and treatment. Inquiries should be addressed to Secretary, Breast Unit, Cross Cancer Institute, 11560 University Avenue, Edmonton, Alberta, Canada I6G.

Sept. 23-26, 1982

Second International Congress on Viral Oncology, in Naples, Italy. Sponsored by the T. and L. de Beaumont Bonelli Foundation for Cancer Research. The congress will provide current results and perspectives in the main areas that have been potentially associated with human cancer. Inquiries: Dr. Errico di Lorenzo, Organizing.

Sept. 27-29, 1982

14th Annual Meeting of the Society for Immunology, in Munster, West Germany. Inquiries: Prof. Dr. E. Macher, Universitat Hautklinik, Von-Esmarch-Strasse 56, 4400 Munster, Federal Republic of Germany.

September 1982

Symposium on Ultrasonography and Cancer, Brussels, Belgium. Papers are invited on experimental, diagnostic, and therapeutic applications of ultrasound in cancer. Full papers are to be published in book form. Inquiries: Dr. S. Levi, Conference Organizer, Department of Obstetrics and Gynecology, Ultrasonography Department, University Hospital Brugmann, B-1020 Brussels, Belgium.

Nov. 5-6, 1982

Fifth Annual San Antonio Breast Cancer Symposium in San Antonio, Tex. Sponsor: University of Texas Health Sciences Center at San Antonio and the Rehabilitation Center of South Texas. Papers invited on the experimental biology, etiology, prevention, diagnosis, and therapy of breast cancer. Abstract deadline was June 1. Inquiries: Gerrie McDaniel, CTRC, 4450 Medical Drive, San Antonio, Tex. 78229. Telephone: 512-690-0655.

Nov. 5-6, 1982

The Cincinnati Conference on Cancer Therapy: Breast Cancers at the Westin Hotel, Cincinnati, Ohio. Inquiries: Thomas J. O'Connor, Bethesda Hospital, 619 Oak St., Cincinnati, Ohio 45206. Telephone: 513-559-6337.

Sept. 18-23, 1983

Second International Cancer Congress on Hormones and Cancer in Monte Carlo. Sponsored by the International Association for Hormones and Cancer. Inquiries: S. Iacobelli, M.D., Laboratorio di Endocrinologia Molecolare, Universita Catolica del S. Cuore, L. go Gemelli, 8-00168 Roma, Italy. Telephone: (06)33054496, Telex 611330.

Sept. 19-21, 1983

Seventh Meeting of the European Association for Cancer Research will be held in Copenhagen, Denmark. Sponsor: the Danish Cancer Society. Major theme: Chemical Carcinogenesis. Inquiries: Dr. J. Kieler, The Danish Cancer Society, Laboratory of Environmental Carcinogenesis, Ndr. Frihavnsgard 70, DK-2100, Copenhagen 0, Denmark.

Your hospital doesn't have to be squeezed out of your community



Hospital management in the 80's is a complex and risky undertaking. Community hospitals are being crushed by a combination of regulations, shortages of capital and personnel, inflation, and inadequate planning.

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LifeFlight: Indiana's Second Hospital-Based Helicopter Transport Service

ROSI WEATHERWAX
Evansville

A NEW DIMENSION of emergency transport care is now in service for the Evansville metropolitan area with the addition of Welborn Baptist Hospital's LifeFlight, a 24-hour-per-day medical helicopter transport system.

LifeFlight, dedicated June 4, is the second hospital-based helicopter service in Indiana* and the first to cover the Evansville tri-state area on a full-time basis. Helicopter transport of area patients previously was dependent on the availability of Tiki Mast, an Army helicopter service based at Fort Campbell, Ky.

LifeFlight, a Bell Long Ranger II helicopter leased from the Omniflight Group, will answer hospital-to-hospital transport calls as well as on-the-scene accident requests from providers and public safety officials.

"We project that, for the first portion of the 18-month demonstration period, LifeFlight will primarily answer hospital transport calls. After the capabilities of LifeFlight are established, there should be a marked increase in the number of on-the-scene calls," predicted Warren Hankins, director of regional services for Welborn.

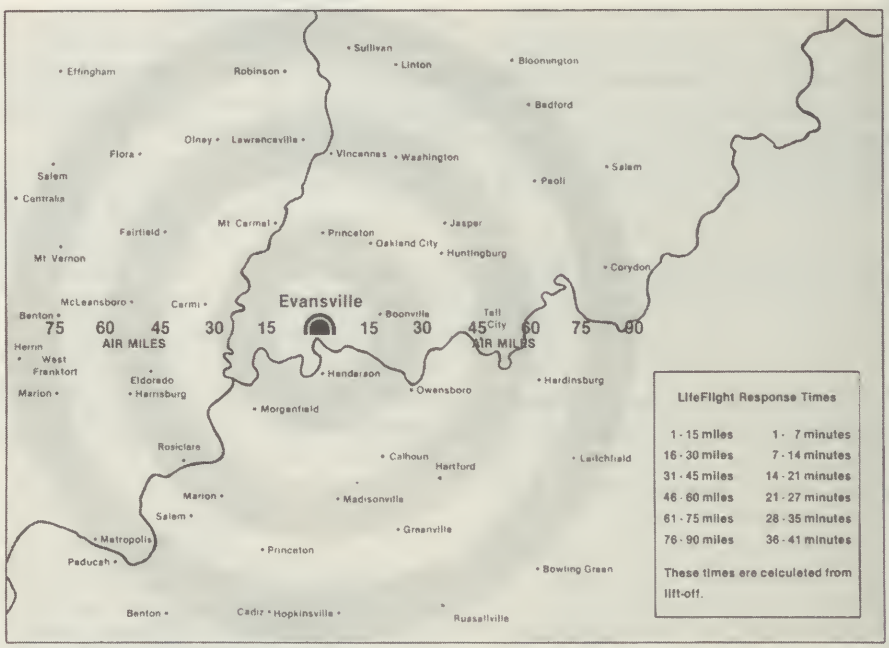
The helicopter is based at Welborn's rooftop heliport with flight operations being conducted from the emergency wing of the hospital. Omniflight has provided three pilots with a total of 12,000 hours flight experience to work 12-hour shifts. Additionally, Omniflight staffs a full-time mechanic at Welborn to keep LifeFlight in top running condition.

The LifeFlight aircraft is capable of carrying the emergency patient, two medical crew members and the pilot. Five Welborn nurses—four women and a man—staff LifeFlight. Chosen for extensive experience in emergency and critical care nursing, the flight nurses' backgrounds include two EMTs, a paramedic, ACLS instructors and ATLS coordinator.

Once chosen for the LifeFlight team, the five nurses visited other hospitals including the Pensacola, Fla., LifeFlight base, for training in flight nursing. In-house training included lectures and clinical experience with physician and clinical specialists in pediatrics, obstetrics and surgery as well as several weeks of practice runs to acquaint the nurses with helicopter flight procedures, safety rules and communications equipment. Continuing education training for the nurses include meeting hospital requirements for specific numbers of procedures each month.

Welborn's emergency room doctors assume responsibility for the patient while LifeFlight is airborne. "The exception is when LifeFlight is transporting a patient to another receiving hospital," explained Dr. Michael Peters, Welborn emergency room physician. "While LifeFlight is based at Welborn, the receiving hospital is decided by the referring physician. If that hospital has the same communication systems as LifeFlight, we turn medical responsibility over to them."

"The on-duty ER physician at Welborn for our incoming patients is re-



Service map of LifeFlight area.

The author is a public relations specialist with Welborn Baptist Hospital, Evansville.

*Indiana's first physician-staffed, helicopter-mediated emergency service, "Life Line," was discussed in the October 1980 issue of THE JOURNAL.



sponsible for directing patient care on board LifeFlight as well as initial care when the patient first comes into Welborn. By communicating with the flight nurse, we can have the necessary medical personnel—such as a surgeon—ready when the helicopter arrives," continued Dr. Peters.

"We have established a critical care team of internists to assess the needs of adult trauma and medical patients. A member of that team is alerted when a patient is incoming and will serve as the primary physician in stabilizing and diagnosing the patient's needs."

During patient transport, the configuration of the helicopter allows the nurse to work over the patient's head and chest area. LifeFlight is completely outfitted with emergency medical needs such as cardiac monitoring, defibrillation, oxygen, suction, intubation and ventilation supplies, i.v. fluids, splinting equipment and complete emergency medications. If a neonate is to be transported, an isolette will fit into the stretcher area. Members of the hospital's High Risk Nursery will respond to neonate transports. Respiratory therapists also are on standby in the event they are needed to make a run with the flight crew.

Having met with almost all hospitals within a 60-mile radius of Evansville, Welborn officials are now meeting with ambulance services throughout the tri-state area to introduce LifeFlight and will honor all existing referral patterns.

"LifeFlight is not intended to replace area ambulance systems. It is available when both speed and advanced support capability are the crucial factors in transport," Mr. Hankins said.

Speed is one of the major benefits of helicopter transport and LifeFlight can reduce land transport time by 60% to 70%. The helicopter can lift off within three to five minutes of dispatch and has a cruising speed of 130 miles per hour.

Travel range for LifeFlight is 330 miles without refueling. LifeFlight's coverage is initially geared to a 90-mile radius of the Evansville area.

Welborn will provide a unique back-up service to LifeFlight with its Mobile Intensive Care Unit. A converted 26-foot GMC motor home, the MICU is equipped for hospital-to-hospital transport of critically ill adults and neonates. Downtime for LifeFlight will be minimal with only occasional inclement weather, maintenance work and previous commitments keeping LifeFlight from being available for transports.

Currently, there are more than 40 emergency air transport systems operating in the United States. Just two years ago, when Welborn began to study the feasibility of such a program, there were only 18.

The 90-mile radius that LifeFlight serves shows the variety in land make-up and occupations. While farming comprises most of the land use for the tri-state, industry and both surface and deep mining are primary employers of tri-state residents.

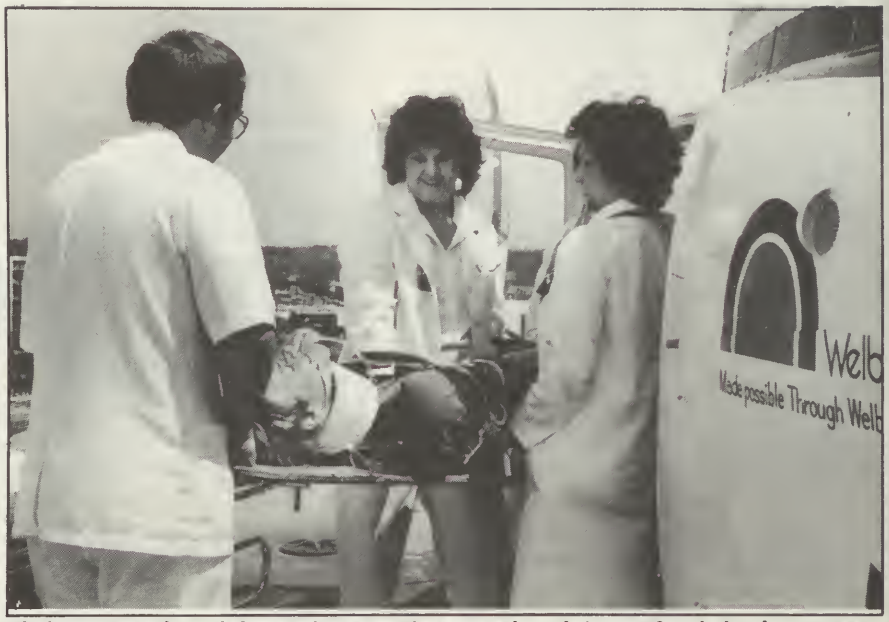
"We expect LifeFlight will be of importance to the mining industry here. In many instances, these mines are isolated from medical facilities that deal with trauma patients. LifeFlight, in its first few weeks of operation, already has transported two miners from an accident in western Kentucky," said Mr. Hankins.

"We are serving a 90-mile radius composed of 66 counties. Only four of these counties provide advanced life support capability on the ground. With such a situation, our service can be of tremendous help to basic life support vehicles at accident scenes and to referring physicians desiring ALS capabilities."

Welborn is a private, not-for-profit hospital and will not receive federal, state or local government funding for the LifeFlight program. The hospital foundation is providing funding for the 18-month demonstration period.

Calling LifeFlight . . . Trauma Patient!

CHRIS POSTEL
Flight Nurse
LifeFlight



Flight nurses (from left) Cecil West, Chris Postel and Susan Smith load a patient aboard LifeFlight during a simulated run.

Pilot Jack Cunningham and I received the first LifeFlight call at 9:35 a.m. on June 3. The call was LifeFlight—trauma patient, Clay County (Ill.) Hospital. Immediately, Jack and I responded to the call and we were airborne within five minutes, on our way to Flora, Ill.

While en route, I received a report on the patient I would soon see. She was 24, and had been involved in a jeep accident. She had sustained chest, head and orthopedic injuries. Her blood pressure was low (less than 80) and the attending physician was attempting to fluid resusciate her. Jack and I then discussed the equipment I would need to take to this patient. I would take my trauma bag and airway bag. These two bags contained all my i.v. supplies, dressings and airway supplies. After securing the aircraft, Jack would bring in the MAST pants, portable oxygen and the appropriate transfer forms. The flight lasted approximately 40 minutes.

Upon landing, I was taken immediately to the victim's side. A quick assessment revealed adequate respiratory function and cardiovascular status. The physician and nursing staff on scene were very helpful in the more thorough assessment. There was the possibility of fractures to ribs 1, 2 and 3 on the left. Subcutaneous emphysema was present. Breath sounds were present bilaterally, yet diminished on the left. I immediately increased the oxygen to 10 liters per minute per mask from 4 liters per minute. I also considered cervical injuries and injuries to major vessels indicative of the existing rib fractures.

The patient's blood pressure was below 90 mm Hg. She was receiving Ringer's lactate per 1-16 gauge IV and 1 unit O-negative blood through another. She had already received 2,000 cc of the Ringer's before my arrival. I elected to put her in MAST trousers since venous access was adequate. The right leg was inflated, immediately bringing the blood pressure above 110 mm Hg. A cervical collar was already in place but I felt it necessary to further stabilize her spine in our litter. She had evidence of a head injury—specifically a basilar skull fracture. Battle signs were evident bilaterally, including bloody drainage from the ears. Her level of consciousness was questionable. At times, she was awake and alert and able to answer questions. At others, she was lethargic and very sluggish. I gave Decadron 10 mg intravenously per neuro protocol.

The next injury to be addressed was a very obvious fracture of the left femur. It was in an air splint. The toes were cool and a large hematoma and bruised area were present over the thigh. I placed this leg in a HARE traction splint. The circulation became better and pain relief was felt by the patient upon application.

We were then ready to transport her back to Welborn. She was loaded unto the helicopter, attached to our oxygen and our cardiac monitor. I kept a close eye on the blood pressure with our Doppler system. As soon as we were in the air, I gave a full report on her condition to our ER physician. I was ordered to continue pushing fluids.

We reached the hospital in 23 minutes. The time to drive the same distance is usually more than two hours. The patient was immediately taken to ER where our ER physician, critical care physician, surgeon, x-ray technician, lab technicians and nursing staff were prepared for her admission. She was intubated, placed on a ventilator, central lines were placed and a chest tube inserted. She was then taken directly to CAT Scan and then to ICU.

While in ICU, her respiratory status quickly improved to where she was removed from the ventilator within a few days. She showed no shows of neurological deficit and after two weeks was transferred to the orthopedic floor. Currently, she is undergoing physical therapy for her broken femur.

FUTURE FILE

Kidney Disease Update

"Kidney Disease Update" will be the subject of a CME conference at Bethesda Hospital, Cincinnati, Oct. 29-30. The course carries 10 hours of Category 1 credit, and is oriented to primary care physicians. Write to Thomas J. O'Connor, 619 Oak St., Cincinnati 45206.

Pediatric Workshop

The Sixth Annual Neonatal and Pediatric Workshop, sponsored by the Indiana Academy of Family Physicians, will be conducted Aug. 27-29 at the Brown County Inn, Nashville, Ind.

The program is acceptable for 14½ prescribed hours by the AAFP, and for 14½ credit hours in Category 1 of the Physicians Recognition Award of the AMA.

For details, contact Mrs. Jackie Schilling, IAFP, 4847 S. High School Road, Indianapolis 46241.

Newborn Symposium

"Infections in the Newborn" will be the subject of the 16th Annual Newborn Symposium to be held Nov. 4 and 5 at the University of Louisville School of Medicine. The faculty will be headed by Dr. Saul Krugman, Distinguished Louisville Pediatric Society Lecturer for 1982.

Write to or call Billy F. Andrews, M.D., School of Medicine, Louisville—(502) 588-5753.

Family Medicine Review

The Thirteenth Family Medicine Review—Session III will be held Oct. 31 to Nov. 5 at Hyatt Regency Hotel, Lexington, Ky. Category 1 credit. Reference is Frank R. Lemon, M.D., College of Medicine, Lexington, Ky. 40536.

Nuclear Cardiology Seminar

The 7th Annual Nuclear Cardiology Symposium will be conducted at the Red Carpet Hotel, Milwaukee, Sept. 22 to 25. Physicians, nurses and allied health professionals may attend. Write or phone Sarah Aslakson, 465B WARF Bldg., 610 Walnut St., Madison, Wisc. 53706, (608) 263-2856.

CME/Sports Getaway

The AMA 1982 CME/Golf Digest-Tennis Program will be held Oct. 10-16 at the Doral Country Club and Hotel in Miami. The reservations deadline is Sept. 1.

Five days of sports instruction and tournament play, AMA video clinics on alcoholism and hypertension, and a four-hour seminar on retirement planning are highlights of the week. The video clinic courses are accredited for eight hours of Category 1 credit.

Call Elaine M. Tejcek at (312) 751-6057 for details, including costs of the various programs.

Geriatrics Course

"Aging and Illness in Primary Care" is the subject of a two-day CME course in Madison, Wisc., Oct. 14 and 15. Suited for an audience of physicians, nurses and allied health professionals who deal with the aged patient. AMA Category 1 AOA and AAFP credit of 14 hours. The fee for physicians is $200, for nurses, residents and others $125.

Write or phone Sarah Z. Aslakson, 465 WARF Bldg., 610 Walnut St., Madison 53706—(608) 263-2856.

Common Cancer Problems

"Common Cancer Problems for Primary Physicians" will be presented Saturday, Sept. 18, at the Parkview Oncology Center, Fort Wayne.

The meeting has been accredited for 5½ AMA Category 1 hours and 5½ AAFP Category 1 hours. The registration fee is $25 for physicians and $10 for residents and other interested medical personnel.

Contact Robert Rankin, Administrative Director, Parkview Oncology Center, 2500 E. State Blvd., Fort Wayne, Ind. 46805. Tel: (219) 482-9681.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Pediatric Seminar

"Common Infectious Diseases in Children" will be the subject of the Joseph E. Coleman Pediatric Seminar to be held at St. Mary's Medical Center in Evansville Thursday, Sept. 16.

Write or call Dr. W. Thomas Spain, 3700 Washington Ave., Evansville 47750—(812) 479-4468.

Seriously Ill Child

"Care of the Seriously Ill Child" will be the subject of the 10th Annual Fall Pediatric Surgery-Pediatrics Symposium sponsored by the Indiana University School of Medicine. It will be held at the Indianapolis Atkinson Hotel, Sept. 29-30.

Contact Jay L. Grosfeld, M.D., Surgeon-in-Chief, Riley Hospital, 1100 W. Michigan St., Indianapolis 46223, (317) 264-4681, or Joni Downs at (317) 264-8353.

Internal Medicine Seminar

The Caylor-Nickel Hospital will sponsor a seminar entitled "Advances in Internal Medicine" at Brown County Inn, Nashville, Oct. 2 and 3.

The meeting will update recent advances in internal medicine, diagnostic radiology and ophthalmology and will be directed toward primary care physicians. Early reservations are advised. Room reservation cards for the Inn will be sent upon receipt of registration. The block of rooms are reserved until Sept. 1 only.

Write or phone Mrs. Jane Thompson, 309 S. Main St., Bluffton, Ind. 46714—(219) 824-3500.

Seminars in Pediatrics

"Seminars in Pediatrics" is the title of a two-day CME course at Madison, Wisc., Sept. 24 and 25. The course is designed for physicians and nurses working with children. The fee for physicians is $140, for nurses, residents and others $85. AMA Category 1, AOA and AAFP credit for 12 hours.

Write to or call Sarah Z. Aslakson, 465 WARF Bldg., 610 Walnut St., Madison 53706—(608) 263-2856.

Marketing Concepts for Medical Practices

Medical Practice Management

LEIF C. BECK, LL.B.
GEOFFREY T. ANDERS, J.D.
DOROTHY R. SWEENEY
Bala Cynwyd, Pa.

PRIVATELY PRACTICING physicians are slowly but certainly turning to marketing and "public relations" as means of building and/or maintaining their patient bases. The concept of having to do more than practice good medicine to protect their patient flow is resisted by many doctors, yet more and more practices are recognizing the need for extra efforts to succeed or simply to maintain patient volumes and doctor incomes. That extra effort is "marketing" in one form or another.

Traditionally, doctors have strongly resisted such a concept. Physicians, as well as other professionals, often fail to distinguish marketing from selling or advertising. While the concepts are certainly interrelated, marketing encompasses a far greater territory—market research, pricing, service mix, distribution, and so on.

In fact, both new and established practices have always marketed their services in one way or another. A new doctor in the community is certain to introduce himself or herself to possible referral sources, OB/GYN practices have long offered prenatal education sessions to their patients, and almost every doctor incurs some "professional entertainment" expense each year. These activities usually have been haphazard, lacking a focus aimed at improving practice visibility on a *planned* basis.

Today, with the so-called doctor "oversupply," rapidly expanding hospital outpatient programs, and aggressive selling by HMOs and large clinics (who often employ experienced marketing personnel), many solos and smaller group practices are feeling pressure on their incomes. Other forward-looking practices recognize that they must begin to act rather than delay and later react to a deteriorating situation. These practices are beginning to organize and expand their patient-relations efforts to resist encroachments—to consciously use marketing disciplines.

When well planned and carried out, marketing approaches have had dramatic success. One group of three primary care doctors we know doubled their number of monthly patient visits in slightly less than a year and continue to grow. In other situations a good patient-relations program has kept practices intact despite an influx of additional doctors of the same specialty. So it has become clear that, whether a practice is looking for more patients or simply seeking to "protect its turf," marketing helps deal with this vexing set of developing problems.

Basic Patient Relations

Before moving to a more in-depth look at some aspects of marketing, any practice would be well advised to consider some all-pervading P.R. basics. It does a practice no good to develop routines to attract new patients or even to attempt strengthening relationships with present patients if it cannot hold those patients' allegiances. A practice housed in a shoddy office, perhaps in which no attention has been paid to patient comfort, is simply fighting itself in terms of patient retention.

The best source of referrals must ultimately be the patients treated by the doctor or group. Busy phone lines, weeks of delay for appointment times and long waits at the reception area, while sometimes unavoidable, must be kept to a minimum to keep patients at all happy. Similarly, smoothly functioning office routines as to insurance matters, billing and delinquent account collections, convenient office hours and helpful parking arrangements are all basic.

Perhaps of greatest importance is the office staff. Friendly, helpful assistants will go a long way in overcoming other P.R. "sins"; no matter how good the service or how bright the office, an antagonistic staff will turn patients away.

Many physicians are unfortunately so consumed with "practicing medicine" that they give no serious attention even to these fundamental concerns of patient relations. The pressures now building on private practices will, we fear, eventually cause these doctors to regret the narrowness of their concern. While other more perceptive doctors effectively retain or increase their share of the patients, some will find their practices and incomes lag from their failure to manage these "office matters" in the first place.

Assuming that the basics have received their attention, practicing physicians should focus on other areas of marketing and particularly in the areas of service analysis and market study.

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Marketing: An Overview

Marketing in broad terms is an attempt to anticipate and/or shape consumer behavior. It involves determining what patients want or need (either intuitively or by market research) and learning what motivates patient choices. It then concerns developing strategies and routines either for adapting the practice to meet those patient desires or for motivating patients to alter their health care provider choices. Marketing is much easier to talk about than it is to perform.

Medical practice consumers (patients) are as diverse as the people in the community served. Few marketing approaches will appeal to a practice's entire range of patients. Thus, a doctor planning strategies should concentrate either on reaching the largest portion of the potential patients or, perhaps better, on focusing specific efforts to reach targeted segments of the population. For example, a practice with an abnormally high rate of cancellations and broken appointments might adopt routines to correct that problem. Or a practice located off the main roads might specifically work to increase its office's physical visibility.

In developing marketing techniques, the primary question is whether or not the patient will recognize the benefit of using the practice's services. Bound up in the broad question is another: Does the strategy favorably highlight the "product," the place or the price? If those questions cannot be answered affirmatively, the marketing routine under consideration probably is not worthwhile.

Market Analysis

To begin planning a marketing strategy a practice must know—in market terms—where it is and where it can realistically be in order to decide how to proceed. That calls for a hard look at various facets of the practice, including its present patient base and the "competition." Obtaining and evaluating the information may be the most difficult task, but various patient relations ideas should readily present themselves upon a conscientious market analysis effort.

In group practices, one doctor should be assigned primary responsibility for the effort, using staff help for the nitty-gritty information gathering. In smaller practices, more of the details naturally will have to be borne by the physicians themselves. Computerized practices have a definite advantage in the information-gathering stages since standard software packages should permit tallying patients by diagnosis, referral source and the like. Unfortunately, many practices that have access to that data have not established routines allowing them to make effective use of the information.

Let us suggest some information items one might initially collect in the marketing analysis stage:

- What is the practice like in terms of specialty, clinical procedures performed, major additional procedures which might be performed, office environment (both the physical facility and, more importantly, the staff-patient rapport), patient and referring doctor patterns, present public relations efforts, etc.?
- Who is the competition? Do not list only the other private practices since hospital programs, HMOs and large clinics must also be considered. How do each of those providers compare against your own practice as to quality and in terms of the characteristics listed for your own practice? Defining strengths and weaknesses in comparison with others offering the same care can be most enlightening.
- What is the total available patient population in terms of numbers, community, sex, age, third-party insurance, number of families, education and the like? Are there any significant growth areas in the community? Is a particular industry or are a few employers key to the community's economics? Much of this information is available from local chambers of commerce and standard referral sources such as *U.S. Abstracts.*
- Where do the practice's patients presently come from? This question is critical. Unless a practice knows the present sources of its patients, any efforts to attract new patients may simply result in canvassing already covered territory. Breaking down the present patient population by zip code, employer, referral source (patients, doctors, etc.), diagnosis, insurance coverage and other factors permits a doctor or group to compare his or her patient base with the community's demographics. The comparison should be intended to reveal the best approaches to holding present patients as well as the fertile grounds for obtaining new patients.

As a mild example, we know of a well established internal medicine subspecialty group that had noted a leveling off of new patients. By tracking the source of new patients on its patient registration sheets, the doctors learned that referrals from present patients were far below normal. With that information before them, the doctors recognized that approaches had to be directed to their existing patients to re-stimulate practice growth.

Comparing where one's patients come from against what patients are available within the service area should help the doctor(s) decide where the practice growth efforts should be aimed. Attempting instead to reach the community at large may be too much a hit-or-miss approach in which the available time and money is not concentrated on the most likely sources of patients.

Service Analysis

There is another facet of marketing that is often overlooked—structuring the medical services to the desires and needs of the patients. A rheumatology or other internal medicine practice that can provide laboratory facilities for its patients usually is well advised to do so even if the lab runs at a financial break-even or slight loss. The greater convenience to patients typically will be worth the extra hassle and investment to the doctor(s).

A group practice might consider adding a new physician or other providers

to round out the services it provides. Pediatric groups might recruit a pediatric allergist, orthopedic groups can engage a physical therapist, and a general internist might add physicians with subspecialty training. While bigger is not necessarily better, structuring a group to provide "full service" is an attractive patient offering. In some recent situations groups have expanded both in number of same-specialty doctors and by adding related specialities; their purposes were not only to provide more and better care within the group but also to discourage other doctors from settling in their community.

As a third slant on service analysis, doctors should evaluate their present services in terms of profitability. It is occasionally preferable to refer out some patient problems and to concentrate on more profitable, perhaps less time-consuming, services. And to the extent the selectivity leads to a reputation (for example, that a certain orthopedist "specializes" in total knees or total hips) so much the better.

Patient Relation Strategies

Once the targeted patient group and a marketing strategy have been identified, physicians have a range of possible techniques from which to choose. The choices must be made carefully and with the previously determined goal firmly in mind. Obviously, the selected technique should project the practice's image in the community. But in addition to projecting one's general reputation, a well designed strategy must distinguish the practice from others providing similar services. Some methods will be more effective in strengthening relations with present patients while others will serve primarily as practice builders.

In attracting new patients, many strategies will depend partly or wholly on patient word-of-mouth. A choice that causes your patients to talk about you can thus be extremely valuable if you have otherwise taken care of the basics previously discussed. Producing a helpful drug information booklet will not help much if your patients also will comment on their hour-long waiting room experiences.

The best public relations approaches put the practice's name before its patients while simultaneously providing a valued service. Patient information booklets and drug effects booklets are good examples. Both of them give needed information and express the doctor's concern for his patients while placing the practice's name in front of its patients—perhaps potential patients as well.

The patient newsletter concept may be the best approach along these lines. If well constructed with interesting, readable items of medical information, patient newsletters satisfy a need for preventive medical information while placing the practice's name in front of patients and prospective patients. Patients receive something beyond the usual fee-for-service doctor procedure—a "valued added" marketing concept.

Patient newsletters are flexible in how they might be used. They can be mailed quarterly or semi-annually to all active and inactive patients, they can be enclosed with monthly billing statements, or they can simply be available at the front desk and distributed by the receptionist. Some practices send a copy along with a note to each new patient to confirm the scheduled visit and say, "We thought you might find our patient newsletter interesting." This latter approach can help avoid new patient visit cancellations that plague some practices.

Along other lines, a group of pediatricians we know staged "An Evening with your Pediatricians" for parents. The evening of questions and answers was a dramatic success in terms of patient relations and the goodwill established. And it caused patients to talk about the practice.

While on a lower key and less visible to the community, other devices might generate enough patient goodwill to help a doctor or group retain an already established patient population. Quite a few of these "marketing" ideas are really old hat, which are not typically considered patient getters—but they nevertheless deserve consideration.

"Loss leaders," for example, are quite common in some practice situations. A doctor might have certain patients return to the office for little or no fee to follow specific conditions. Any lost revenues may later be made up whenever surgical or other more extensive procedures become necessary. A lenient credit and collection policy, while unsound from a financial management standpoint, is a marketing technique. Participation in third-party insurance programs such as Blue Shield and Medicare is another means of competing for patients. While these pricing tactics may succeed from a marketing standpoint, other objections usually have caused us to prefer marketing based on quality and service, but now we begin to see good practices taking both approaches.

Other low-profile marketing approaches emphasize service. Some practices, for example, will prepare and submit their patients' third-party insurance claim forms even if they (the practices) do not participate in those programs; the paperwork simply is handled on the basis of better patient service. Some subspecialty physicians follow up on referred patients with personal phone calls to the referring doctors in addition to their usual letter reports. Similarly, calling patients with laboratory test results is not only more efficient but a helpful convenience for the patients involved.

Conclusion

Adopting certain described marketing techniques may indeed cost money. We would not be surprised to see good practices commit 5% of their gross income to "P.R. and marketing" in the future as the competition among oversupplied doctors continues to increase. The choice should not, of course, always be simply to spend more money because careful cost/benefit analysis is an essential part of marketing. Each doctor and group will and must seek to produce the most patient goodwill for the extra dollars spent on this new overhead category.



AUXILIARY REPORT

Karen (Mrs. Robert M.) Schleinkofer
President, ISMA Auxiliary

The Indiana delegation of 10 state delegates and two national delegates attended the 60th anniversary convention of the AMAA at the Drake Hotel in Chicago June 13-16. Those attending were: Dorothy Bickers, Floyd Co., Judy Koontz, Knox Co., Alfreida Mackel, Allen Co., Vivian Priddy, Allen Co., Wilmajean Scamahorn, Hendricks Co., Dorothy Schiller, St. Joseph Co., Karen Schleinkofer, Allen Co., Anne Schuster, Marion Co., Martha Stout, Delaware-Blackford Cos., Anne Throop, Marion Co. who were state delegates and Ruth Gattman, Elkhart Co. and Marge Smith, Allen Co. as national delegates. Also Rosanna Iler from the ISMA office.

It was a very busy four days. The program workshops were presented on Sunday morning. The workshops were AMA-ERF, Health, Legislation and Membership. The most important point brought out at the legislation workshop was that "Involvement Tips the Scales." Getting involved should be everyone's priority. Also a good point—if you won't stick your neck out at a meeting, don't stick your tongue out after the meeting.

At two o'clock we went to the Marriott Hotel for the opening of the AMA House of Delegates and then hurried back to the Drake for our delegation picture. The formal opening of the AMA Auxiliary was at 5:30. It was a very impressive ceremony. After the session a reception was held honoring the national president, Mrs. Harry Dvorsky, and the president-elect, Mrs. Torrence Payne. The reception was followed by a get-together with the North Central Region.

On Monday morning we had reference committee hearings on finance and health issues, followed by an open hearing on a complete bylaws revision. A champagne brunch was held honoring the National AMAA Past Presidents on the occasion of the 60th anniversary. A multi-media presentation was given on "The Auxiliary, A History of Leadership."

The house reconvened at two o'clock. The state auxiliaries began their two-minute reports. The North Central Region was first. I gave the report in the absence of Marianna Irwin, our immediate past state president. Marianna was unable to attend because she joined her husband, Dr. Glenn W. Irwin, Jr., on a trip to China.

On Tuesday we started our day with a 7:15 breakfast caucus of the Indiana Delegation and then back in session. At lunch the speaker was Rhea Seddon, M.D., a mission specialist of NASA. Her talk was interesting, as she and five other women were the first women in the astronaut program. Dr. Seddon's special expertise is the field of nutrition. She and her husband, a fellow astronaut, are expecting their first child.

After voting for the members of the nominating committee, we went back to the Marriott to help host in the Indiana Suite. We met a lot of interesting people.

On Wednesday morning we were back in session. The AMA-ERF totals were presented. The total contribution was $1,742, 913.68. Indiana's total was $59,767.40, an amount that was a big increase over last year. The installation of the officers of the AMAA took place. Marge Smith of Fort Wayne was installed as first vice-president of the AMAA. We are very proud of Marge. The new president, Mrs. Torrence P. B. Payne of New York, gave a very stirring speech. Betty was born in Greece. A buffet luncheon was held in honor of Mrs. Payne. The inauguration of the AMA president, Dr. William Rial, took place that evening at the Marriott. It was followed by a reception honoring Dr. Rial and Mrs. Payne.

All in all, it was a great convention.

ADAM'S SHADOW

Thoughts of a One-Mile Jogger



NOLI C. GUINIGUNDO, M.D.
Brookville

I DON'T ASPIRE to have a body like Atlas or any of his successors in the body-building contests, nor do I long to run the Boston Marathon. No matter how noble those aspirations, I have managed to lose 10 to 15 pounds on my own—through dieting, elimination of midnight snacks and plenty of exercise. I am doing these things on my own volition—not as a member of an almost cultish order and not as a fad like the jogging fanatics.

I don't follow the latest Beverly Hills Diet, which has stirred a lot of commotion and controversy among the top nutritionists in the country. I don't eat fruits like papaya, making sure lime or lemon is not added, which allegedly could change its enzymatic efficacy.

I don't want to lose weight to satisfy the eyes in this thin-is-beautiful society. Yes, being thin is "for the eyes only" but not for your physical chemistry.

These thoughts crept into my mind while mildly jogging the quarter-mile oval at the ballpark. I heard some kids say, "I can do better than that!" For a guy my age I thought I was doing all right.

I'm trotting the irregular path unlike Secretariat with Schumacher or Steve Cauthen at the helm. What if I get a heart attack like those young Congressmen from California who had myocardial bridging? But I'm not exerting myself to my full potential. How could jogging possibly affect me?

Those kids didn't bruise my ego but I'm trying to push myself harder, hoping I can jog at a better pace. But nothing happens. All my vital signs have accelerated as I reach the third lap. I think of how slim I will be after doing all this exercise. Candy bars are mainly responsible for the extra weight I'm carrying, but we are just humans who succumb to palatal sins!

Now I'm thinking how I might look in one of those Jordache or Sergio Valente designer series. Just one lap to go to finish my one-mile budget for the day. Will I burn enough calories to compensate for the donut and rolls I'm contemplating for breakfast? Between jogging and my fencing lesson, there should be at least a thousand calories to dissipate.

My legs are getting crampy but I just have to make that last lap for today. What am I trying to do to my body? I'm reminded of those archetypal neurotics who can't even take a vacation from their own neuroses. It makes me think of quitting to take a leisurely visit to the Aerobics Center in Dallas or the Pritikin Longevity Center in Santa Barbara.

Am I some kind of a fanatic in jogging? I know jogging will pass on like men's and ladies' fashions. I know most of my classmates who are cardiologists are fanatical about jogging. In spite of one's conviction about this fad, it still evokes magic in the way you feel, touch, and breathe especially when you get into the so-called second wind! Then you feel the exhilaration, the vivaciousness in the way you walk, move, or talk. And there's less strain in your anterior when you bend over to tie your shoes.

All those efforts should not have been in vain in spite of my silent philosophizing. At a distance, the ballpark oval does not appear as wide as before. It seems to be within easy grasp, and I remember that my car is parked just at the end of that path. Thank goodness!

Correspondence: 801 Main St., Brookville, Ind. 47012.

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Coverage through Pennsylvania Casualty Company is now being offered to physicians in Indiana for both Claims-Made and Occurrence policies. By way of introduction, Pennsylvania Casualty Company is a member of the PHICO Group—the largest insurance carrier for health care providers in Pennsylvania. PHICO was formed by the health care providers in that State as a solution to the medical malpractice crisis of the 1970's.

The Company is staffed by selected professionals drawn from the health care, legal and medical malpractice insurance fields. Unlike most traditional insurance carriers, we provide coverage **exclusively** to health care providers. Today the PHICO Group provides coverage to over 5,200 physicians.

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PENNSYLVANIA CASUALTY COMPANY
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INDIANAPOLIS, IN 46208
TELEPHONE (317) 926-5836

NEWS NOTES

When NOT to Use Aspirin

The American Academy of Pediatrics Committee on Infectious Diseases has reviewed epidemiologic studies of Reye Syndrome and concluded it is probable that salicylates, such as aspirin, contribute to the disease.

The recommendation is that children with suspected cases of chicken pox or influenza *not* be given aspirin. The committee also added that it was wise not to give any fever-reducing substance for such presumptive diagnoses. Increased fluid intake and tepid water sponging should be used, said the committee.

Emergency Care Slides

Revised emergency care slides are available in sets from the American Academy of Orthopaedic Surgeons.

There are more than 1,800 full-color slides featuring recent advances in emergency medical care techniques. One set follows chapters in the recently published AAOS third edition of *Emergency Care and Transportation of the Sick and Injured* and another set is for use with the U.S. Department of Transportation EMT training course.

The slides are packaged in a sturdy metal carrying case with dividers separating chapters, with legends across slide tops to insure proper sequence. The Emergency Care Slide Set is available for $350. Address the Academy at 444 N. Michigan Ave., Chicago 60611.

Geriatrics Taking Back Seat?

Only 16 medical schools in the United States presently require students to enroll in geriatrics courses, according to Dr. Lester D. Bibler of Indianapolis, outgoing president of the Fifty Year Club of American Medicine.

Dr. Bibler made the comment following the AMA group's annual meeting in Chicago June 15. He also noted that this year's meeting was the best attended in recent history. The group claims 1,280 members.

Dr. Harold C. Ochsner, formerly of Indianapolis and now living in Naples, Fla., was elected president-elect of the organization.

Indiana Court Action

A medical licensing board properly revoked a physician's license, an Indiana appellate court has ruled.

The physician was convicted of conspiracy, unlawfully dealing with stolen explosives, damaging property used in interstate commerce by means of an explosive, and possession of unregistered firearms. Because of his conviction, the physician's license was revoked by the medical licensing board.

A trial court refused to set aside the revocation. The appellate court held that the decision to revoke the physician's license was supported by sufficient evidence and affirmed the lower court's decision.—*Lind v. Medical Licensing Board of Indiana,* 427 N.E.2d 671 (Ind Ct. of App., Oct. 21, 1981)

Indiana's Dietitian-Diabetes Referral Network

There is now a way for your patients with diabetes to have continuity of nutritional care with the help of a Registered Dietitian, but without the necessity of being admitted to the hospital.

The Indiana Dietetic Association and the Diabetes Research and Training Center have identified dietitians with a special interest and expertise in diabetic nutritional education. A list of such dietitians is available for referral by physicians from the phone numbers listed below. The existence of this referral network should help the physicians in:

- Outpatient diet motivation and advice that could encourage the person to reach weight goals and maintain acceptable levels of blood glucose control.
- Diet modifications that may be needed because of lifestyle or activity changes, or because of concurrent medical situations (pregnancy, hypertension, etc.).

For names of Registered Dietitians in your county area who accept referrals, or for further information, contact Beth Gatto (IDA, (317) 924-8919), Madelyn Wheeler (DRTC, (317) 630-6215), or one of the five American Diabetes Association regional offices in Indiana:

Central: Indianapolis (317) 356-7208
No. Central: Anderson (317) 378-0555
North East: Ft. Wayne (219) 482-9426
North West: Hobart (219) 769-3650
South West: Terre Haute (812) 232-0361

CME Quiz . . .

CONTINUED FROM PAGE 541

7. Schizophrenia is found most commonly in _____.
   a. the elderly.
   b. upper income families.
   c. black populations.
   d. lower socio-economic groups.
8. All of the following symptoms are characteristically found in schizophrenia except:
   a. Bizarre "absurd" delusions.
   b. Auditory hallucinations of the "running commentary" type.
   c. Disorientation to time, place and person.
   d. Association disturbance with inappropriate affect.
9. All of the following statements are true about schizophrenia except:
   a. There is a characteristic premorbid personality type.
   b. The course of the disorder is exceedingly varied.
   c. There is often a pro-dromal stage characterized by pervasive anxiety.
   d. Patients frequently consult physicians in the early stages of the disorder for vague somatic complaints.
10. A poor prognostic factor in schizophrenia is _____.
    a. presence of depressive features.
    b. presence of marked emotional blunting.
    c. clear precipitating circumstances.
    d. presence of confusion on admission.

Here and There . . .

. . . **Dr. Charles A. Bonsett** and **Dr. Frank P. Lloyd,** Indianapolis, and **Dr. Joseph Muhler** of Howe were among 12 persons inducted into the 100-member Indiana Academy in June. The Academy was founded "to further the development of public service, higher education and arts and sciences."

. . . **Dr. Ned B. Hornback** of Indianapolis has been elected to Fellowship in the American College of Radiology.

. . . **Dr. George T. Lukemeyer** of Indianapolis has been elected secretary-general of the American College of Physicians.

. . . **Dr. Kenneth A. Black** of Portage was among six recipients of this year's *Gary Post-Tribune* Community Service Awards; he was selected in the "health and medicine" category.

. . . **Dr. Donald A. Dian,** a pediatrician who is director of medical education at Caylor-Nickel Medical Clinic in Bluffton, was among the featured speakers at an adolescent medicine seminar sponsored by the clinic in June.

. . . **Dr. Alan D. Schmetzer,** an Indianapolis psychiatrist, discussed "Schizophrenia" during the May meeting of the Johnson County TLC (Together We Learn to Cope) group.

. . . **Dr. Willis W. Peelle,** a Kokomo urologist, discussed kidney disease as a complication of diabetes during a meeting of the Howard County Chapter of the Diabetes Association.

. . . **Dr. Donald E. Wood** of Indianapolis received the "Vital Award" from the Marion County Chapter, American Heart Association, at an "Open Heart Open" golf tournament in June. Dr. Wood, one of the five founders of the Marion County chapter in 1937, underwent coronary bypass surgery last fall.

. . . **Dr. Lowell H. Steen** of Hammond was presented the Indiana University School of Medicine's Distinguished Medical Alumni Award in a ceremony held on Alumni Day.

. . . **Dr. Robert L. Forste Jr.** of Columbus has assumed the presidency of the I.U. School of Medicine Alumni Association, succeeding **Dr. Fred W. Dahling** of Fort Wayne; **Dr. William H. Beeson** of Westfield was named president-elect.



Dr. Lester D. Bibler and his wife, Vera, celebrated their 60th wedding anniversary and were warmly toasted and congratulated at a reception in Indianapolis on June 27. Dr. Bibler, who was graduated from I. U. School of Medicine in 1925, retired from active practice in 1980 after engaging in family practice for 54 years. He is a veteran of five years service in the U.S. Navy during World War II. He is recognized for his leadership in establishing the specialty of family practice by having a medical school professorship chair named in his honor in 1978. He is a charter Fellow of the American Academy of Family Physicians and was the first president of the Indiana Academy of Family Physicians.

. . . **Dr. Robert P. Acher** of Greensburg has been presented the Lester Bibler Award, the highest award bestowed by the Indiana Academy of Family Physicians.

. . . **Dr. Leonard E. Zeabart** of Muncie has been appointed to the Delaware County Board of Health, replacing **Dr. James W. Kress** of Muncie, whose term expired.

. . . **Dr. Frank B. Bard** of Crothersville has been named by the Jackson County Council on Aging as recipient of the 1982 "Older Hoosier of the Year" award.

. . . **Dr. Richard N. Matzen** of Bluffton has been elected secretary of the representative council, American Thoracic Society.

. . . **Dr. Virginia M. Wagner** of Speedway served as medical director for a week-long health camp last month for children with asthma. The camp was sponsored by the American Lung Association of Central Indiana.

. . . **Dr. Robert R. Kopecky** of Indianapolis has been named to the board of directors of the National Bank of Greenwood.

. . . **Dr. William D. Province** of Franklin, Johnson County health officer, has been elected president of the Indiana County Board of Health Officers.

. . . **Dr. Robert E. Cleary, Dr. Donald L. Cline** and **Dr. Leo M. Bonaventura,** Indianapolis, discussed treatment for impaired fertility during the June meeting of the Indianapolis Area Chapter of Indiana Resolve.

. . . **Dr. Ross L. Egger** of Daleville has joined the Indiana Army National Guard. Dr. Egger, director of the Family Practice Residency Program at Ball Memorial Hospital, Muncie, served previously in the Guard; with the rank of major, he now serves as medical officer of the 38th Infantry Division.

. . . **Dr. Kyung J. Ahn** of Munster, president of the medical staff at Our Lady of Mercy Hospital, has been elected president of the Korean Medical Society of America.

. . . **Dr. Dean R. Bahler** of Crawfordsville, medical director at R. R. Donnelley & Sons Co. since 1968, retired July 1.

CONTINUED ON NEXT PAGE

NEWS NOTES

Here and There . . .

. . . **Dr. Robert M. Sweeney,** a South Bend pediatrician, has been elected president of the Northern Indiana Council, Boy Scouts of America.

. . . **Dr. Frank H. Green** of Rushville has been appointed by Governor Orr to the Indiana Soldiers' and Sailors' Children's Home advisory board.

. . . **Dr. Edward L. Langston** of Flora, president of the Indiana Academy of Family Physicians, was guest speaker at a recent recognition dinner honoring the 12 graduating residents of St. Mary's Medical Center, Evansville.

. . . **Dr. George W. Hicks** of Indianapolis has been made a full member of the Triological Society; his thesis for membership was "Glandular Tumors of the External Auditory Canal."

. . . **Dr. Robert J. Steele,** an Indianapolis oncologist, was guest speaker at a June meeting of the Howard County Cancer Society; he discussed "Recent Advances in the Battle Against Cancer."

. . . **Dr. Nina C. King** of Kokomo, president of the Indiana Affiliate of the American Diabetes Association, was guest speaker at a June meeting of the Association's Howard County chapter.

. . . **Dr. Manuel G. Garcia** has been elected president of the medical staff, Margaret Mary Community Hospital, Batesville; **Dr. J. F. Ortiz** was elected vice-president, and **Dr. Steven Glaser,** secretary treasurer.

. . . **Dr. Elpidio L. Gamboa** of Lake Village was guest speaker at the June meeting of the Newton County Diabetes Chapter.

. . . **Dr. Lester H. Hoyt,** head of a training program for physicians and nurses at Methodist Hospital, Indianapolis, has received an alumni achievement award from Simpson College in Indianola, Iowa.

. . . **Dr. William F. Blaisdell** of Seymour discussed cardiovascular diseases during a recent meeting of the Seymour Evening Lions Club.

. . . **Dr. Eleanor Filmer** of Lafayette participated in a recent seminar at Home Hospital aimed at helping young people become better babysitters.

. . . **Dr. C. S. Lee** of Fort Wayne read a report, "Endoscopic Treatment of Gastric Stenosis Secondary to Gastric Partition for Morbid Obesity" at the May 19 meeting of the American Society for Gastrointestinal Endoscopy in Chicago; **Drs. A. J. Perry** and **J. E. Arata** of Fort Wayne were co-authors.

AIT Wins 3 National Awards

The Agency for Instructional Television (AIT) with headquarters in Bloomington, Indiana, recently received three national awards; one was the prestigious Distinguished Service to Health Education Award from the Association for the Advancement of Health Education. The AIT is a leading developer and distributor of classroom television programming.

The AIT program "Daddy's Girl" received an award from Ohio State University for "excellence in educational, informational and public affairs broadcasting." The program "Side by Side" won the CINE Golden Eagle Award.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Ahlbrand, Roland C., Fort Wayne
Almase, Rodolfo M., Hobart
Atkins, Steven D., Greenwood
Bizer, Mier A., Jeffersonville
Brewer, Robert A., Logansport
Buckner, George D., Fort Wayne
Buechler, James R., Terre Haute
Buehner, Donald F., Evansville
Carroll, Mary E. Davis, Crown Point
Felger, Thomas A., Fort Wayne
Gailani, Salman D., East Chicago
Gavilanez, Marcelo R., Bluffton
Goldenberg, Mitchell E., Munster
Greene, Morgan E., Indianapolis
Hallal, Eli, New Albany
Harman, Robert E., South Bend
Harris, Robert L., Evansville
Haynes, John T., Indianapolis
Hoover, Joseph R., Fort Wayne
Hughes, William B., Waterloo
Kerlin, Joseph C., Danville
King, Charles R., Anderson
Korn, Jerome M., Gary
Langston, Edward L., Flora
Lautz, Herbert A., Munster
Leon, Mario, Jasper
Lindgren, Ivan T., Aurora
Mabel, Thomas A., Noblesville
Macri, Paul A., Mishawaka
Muhler, Joseph C., Fort Wayne
Musngi, Luciano P., Pendleton
Nale, Stephen W., New Albany
Neathamer, Thomas A., Jeffersonville
Nill, John H., Fort Wayne
O'Brien, Francis E., Rensselaer
Peters, James L., Shelbyville
Rheinheimer, Floyd L., Milford
Rouhana, Rudolph, Indianapolis
Rumana, Robert H., Bluffton
Sabens, James A., Indianapolis
Sawyer, Douglas E., Warsaw
Scamahorn, Malcolm O., Pittsboro
Serwatka, James A., South Bend
Sheeler, Gary L., Auburn
Sidel, Alan W., Fort Wayne
Silvero, Hubert L., Fort Wayne
Singco, Bienvenido O., Greenfield
Somani, Indra K., Merrillville
Spicer, Stephen C., Rensselaer
Stine, Marshall E., Bremen
Tadatada, Victoriano J., Salem
Tate, Thomas D., Fort Wayne
Van Meter, C. Powell, Indianapolis
Vormohr, Joseph F., Portland
Webb, Thomas A., Evansville
Weiss, Robert M., New Albany
Wells, William R., Princeton
Wolf, Harry C., Indianapolis
Wongse-Sanit, Yong Y., Crown Point
Wongse-Sanit, V. M., Crown Point

These reports bring you information on what the AMA is doing, on behalf of the profession and the public, to influence decisions that will affect health care in the next decade and beyond.

health issues of the 80's

competition

The word "competition" applied to the health care delivery system may be perceived as an anathema by some physicians who, in the past, have equated the concept of competition with high-pressure, wheeler-dealer business rivals. Or competition might have evoked thoughts of Olympic contestants, honorable orators, or chess champions. But the phrase, "competition in the medical care marketplace," until recently, was not often used.

Today, competition forms the cornerstone of some legislative and administrative proposals aimed at reducing health care utilization and, consequently, reducing costs. The premise, like many economic concepts, seems simple: if patients (the consumers) have greater participation in choosing from among several health care plans with different costs and different benefits, they will select appropriate plans and use services more prudently. Included in the premise is the idea that those connected with providing and financing care—physicians, hospitals, insurers and others — will compete to find the most cost-effective ways of providing that care. The extent to which actual behaviors will change to meet predictions is unknown.

The American Medical Association supports many of the principles of competition proposals — but we have grave concerns about some aspects of certain proposals.

About a year ago, the AMA House of Delegates adopted a report containing principles of evaluating competition legislation. The report named six basic desirable concepts: employers should offer multiple choice of plans; plans should provide at least certain minimum benefits; equal employer contributions, regardless of plan, should be required; nontaxable rebates to employees should be made when plans costing less than the amount of the employer contribution are selected; a maximum nontaxable contribution limit (adjustable for inflation) should be placed on the amount(s) of the premiums paid by an employer that are eligible for tax deductions as business expense; and unqualified plans should not be eligible for tax deduction.

The foregoing concepts are basic to the competition proposals now being considered by Congress and the Administration. However, some legislative initiatives before the Congress also go far beyond these and could create an adverse effect on our health delivery system. The AMA opposes any legislation that would: (1) increase federal involvement in regulation of health care delivery; (2) merely replace existing programs of regulation with yet another set of expensive and complicated dictates; or (3) require undesirable restructuring of our health system. The AMA believes, also, that any new program should be introduced on a limited basis until it has been tested and proved effective.

While many economic theories appear reasonable on paper, human behavior does not always mirror theory. Results may not match expectations. Radical changes in health care delivery should be avoided, as should any proposals that would serve to ration or lower the quality of health care available to the American people.

The American Medical Association, reflecting the concern of its members, will continue to maintain a careful watch on legislative proposals affecting health care and support only those that show the promise of practicality.

Such leadership requires your support. The larger our membership (now nearly 240,000) the greater our influence, and our strength, as the only representative for all of medicine.

For details on how to join, contact your state or county medical society or the Division of Membership, American Medical Association, 535 North Dearborn, Chicago, Illinois 60610, (312) 751-6196.

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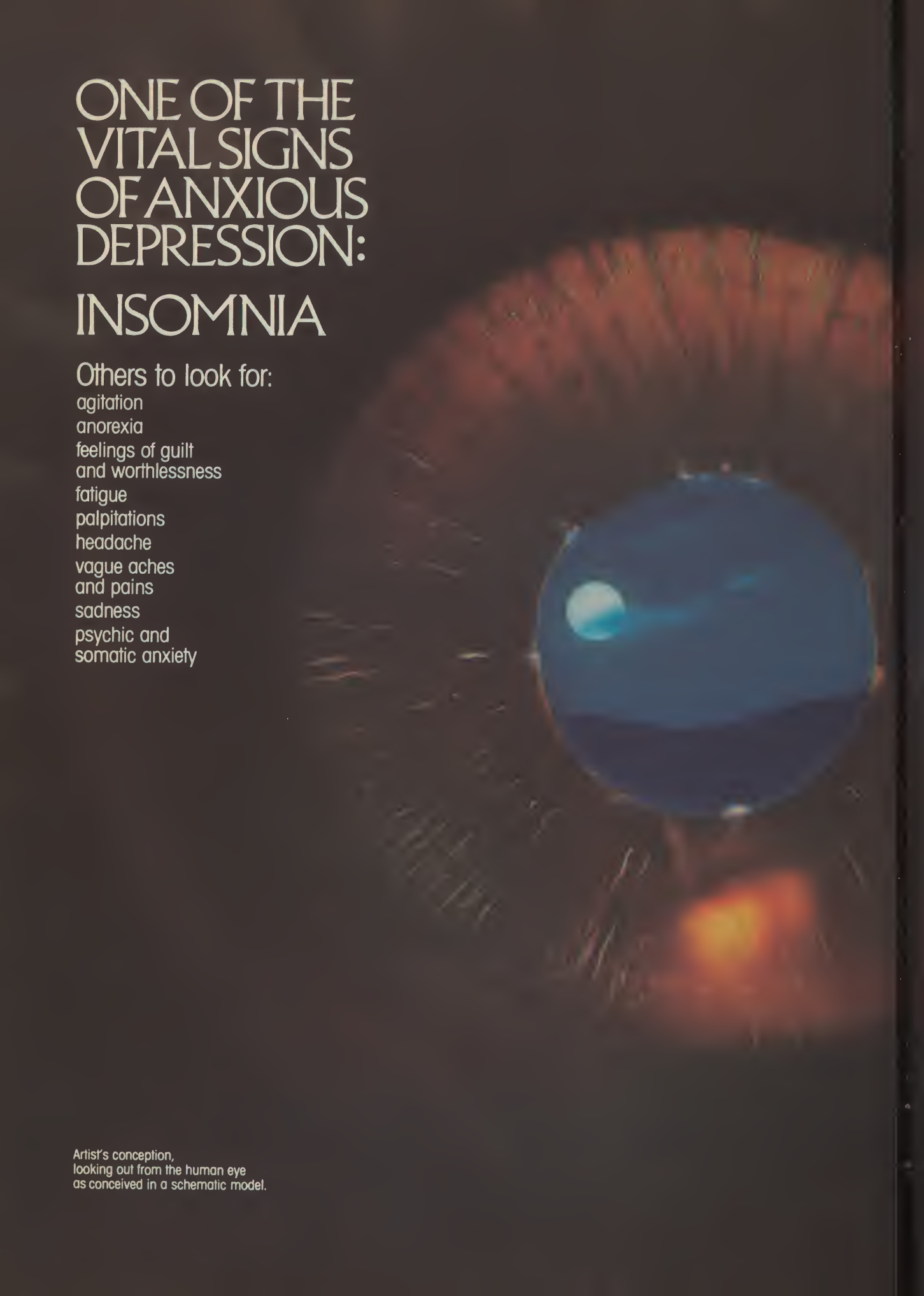
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ONE OF THE VITAL SIGNS OF ANXIOUS DEPRESSION:

INSOMNIA

Others to look for:

agitation
anorexia
feelings of guilt and worthlessness
fatigue
palpitations
headache
vague aches and pains
sadness
psychic and somatic anxiety



Artist's conception,
looking out from the human eye
as conceived in a schematic model.

ROCHE

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Limbitrol brings a special—and specific—quality of relief to most anxious depressed patients. Insomnia, for example, responds with particular promptness. Other symptoms likely to respond within the first week of treatment include anorexia, agitation and psychic and somatic anxiety. And, as the depression and anxiety are alleviated, in many cases so are such related somatic symptoms as headache, palpitations, and various vague aches and pains.

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Many patients respond readily to a single bedtime dose of Limbitrol, a convenient schedule that may enhance compliance and helps relieve the insomnia associated with anxious depression. Limbitrol also offers a choice of other regimens: t.i.d., or a divided dose with the larger portion h.s. In all cases, caution patients about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as driving or operating machinery.

in moderate depression and anxiety

Limbitrol® 5 12.5 10 25

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Specific therapy with h.s. dosage convenience

Please see summary of complete product information on following page.

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Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated: sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.
How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.

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Constitution and Bylaws

Indiana State Medical Association

Draft of Updated Decimalized Version
As Directed by the
1981 House of Delegates

Indiana State Medical Association
3935 North Meridian Street
Indianapolis, Indiana 46208

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Constitution

ARTICLE I—TITLE AND DEFINITION

The name of this organization is the Indiana State Medical Association. It is the federacy of Indiana county medical societies.

ARTICLE II—PURPOSES

The purposes of this Association shall be to federate and bring into one compact organization the medical profession of the state of Indiana, and to unite with similar societies of other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education; to promote friendly relations among physicians; to protect its members against imposition; and to enlighten and direct public opinion in regard to the great problems of medical care and public health so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

ARTICLE III—COMPONENT SOCIETIES

Component societies are those county and district medical societies contained within the state of Indiana, and who hold charters from this Association.

ARTICLE IV—MEMBERS

The Indiana State Medical Association is composed of individual members of county medical societies and others as shall be provided in the Bylaws.

ARTICLE V—HOUSE OF DELEGATES

The legislative and policy-making body of the Association is the House of Delegates composed of elected representatives and others as provided in the Bylaws. The House of Delegates shall transact all business of the Association not otherwise specifically provided for in the Constitution and Bylaws and shall elect the general officers, except trustees, as otherwise provided in the Bylaws.

ARTICLE VI—OFFICERS

The general officers of the Association shall be a president, president-elect, immediate past president, treasurer, assistant treasurer, speaker, vice speaker, and the trustees. Their qualifications and terms of office shall be provided in the Bylaws.

ARTICLE VII—TRUSTEES

The Board of Trustees is composed of trustees and alternate trustees elected by the component district medical societies, and the president, the president-elect, treasurer, immediate past president, the assistant treasurer, with power to vote only in the absence of the treasurer, and the speaker and vice speaker without power to vote and the executive director without power to vote. The alternate trustees have power to vote only in the absence of the trustee.

The Board of Trustees shall have charge of the property and financial affairs of the Association and shall perform such duties as are prescribed by the law governing directors of corporations or as may be prescribed in the Bylaws.

ARTICLE VIII—THE CONVENTION

The House of Delegates and the general scientific program shall be convened annually and at such other times as deemed necessary or as provided in the Bylaws, in cities recommended by the Board of Trustees and approved by the House of Delegates.

ARTICLE IX—FUNDS, DUES AND ASSESSMENTS

Funds may be raised by annual dues or by assessment of the active members on recommendation of the Board of Trustees and after approval by the House of Delegates, or in any other manner approved by the Board of Trustees as provided in the Bylaws.

ARTICLE X—AMENDMENTS

The House of Delegates may amend this Constitution at any convention provided the proposed amendment shall have been introduced at the preceding annual convention and provided two-thirds of the voting members of the House of Delegates vote approval and provided that it shall have been published twice during the year in THE JOURNAL of the Association.

Bylaws

PRINTING CODE:
For clarification, proposed changes are indicated as follows:
~~This style type~~ (– – – – –) indicates deletions;
Italics indicates additions

1.00 MEMBERSHIP — QUALIFICATIONS, ELECTIONS AND RIGHTS
(major rewrite follows)

1.01 Categories: Categories of membership are: 1) Regular; 2) Dues Exempt; 3) Intern and Resident; 4) Medical Student; 5) Distinguished; 6) Honorary.

1.0101 REGULAR MEMBER: The term "Regular Member" as used in these Bylaws shall be: 1) A person who holds the degree of Doctor of Medicine or Bachelor of Medicine, or who holds an unrestricted license to practice medicine. 2) A member in good standing of a component county society and who has paid to this Association annual dues, provided, however, that 3) the person is a citizen of the United States of America, or has filed the declaration of intention of becoming a citizen and the first citizenship papers are in full force and effect.

1.0102 DUES EXEMPT MEMBER: The term "Dues Exempt Member" as used in these Bylaws shall include the following:

1.010201 Senior Member. Senior Members shall be eligible for Senior Membership on January 1 following their 70th birthday and they shall be physicians of the state of Indiana and who have held their membership in the Indiana State Medical Association for 20 years or more; or who have held membership in the Indiana State Medical Association or in some one or more other like state organization(s) which is a component state organization of the American Medical Association, for a combined total of 20 years or more, and who, upon their application, have been certified to the Executive Director as eligible for such membership by the county societies of which they are members. It shall be the duty of the county medical society to verify, through the office or offices of any other state organization or organizations, the fact of membership therein when such membership is claimed as part compliance with the eligibility requirement of 20 years of membership.

1.010202 Disabled Member. Disabled Members shall consist of physicians of the state of Indiana who are certified by a member physician to be permanently disabled and no longer able to practice medicine. Proof of permanent disability shall be by notification to the Executive Director of the Association by the secretary of the county medical society in which the permanently disabled physician holds membership.

1.010203 Inactive Membership. Members who decide voluntary inactivity prior to the age of 70 shall be exempt from payment of membership dues for the duration of their inactive status when notification is received by the Executive Director of the Association from the secretary of the county medical society in which such inactive member holds membership. In deciding whether to approve a member's eligibility, the county medical society shall determine that the member has ceased the practice of medicine in the state of Indiana.

1.010204 Financial Hardship. In the event the county relieves a member from the payment of dues because of financial hardship, the secretary of the county medical society shall recommend in writing to the Executive Director of ISMA the relief from State Association dues of said member of the society, showing why such recommendation should be granted.

1.0103 INTERN AND RESIDENT MEMBER: Interns and Residents who hold membership in the Indiana State Medical Association shall have all the rights and privileges of this Association.

1.0104 MEDICAL STUDENT MEMBER: Medical students who attend an accredited medical school in Indiana are members of this Association. Student members may subscribe to THE JOURNAL.

Medical Student Members may be represented in the House of Delegates with the power to vote and hold office. They shall be entitled to send one student delegate or one student alternate delegate to the House of Delegates. Student delegate and alternate are to receive THE JOURNAL of the State Association free of charge.

The Student Council of the Indiana University School of Medicine shall elect a student delegate and alternate delegate from nominees presented to them from each class. All resolutions introduced in the name of the student body must be presented through the Student Council func-

tioning as the executive body of the student members—in effect, a student component society.

1.0105 DISTINGUISHED MEMBER: Members who have fulfilled the American Medical Association's Physician Recognition Award requirements of 150 hours for three years of continuing medical education as a minimum shall be designated as Distinguished Members.

1.0106 HONORARY MEMBER: Honorary Members shall consist of physicians, teachers, scientists and others of distinction who have rendered highly meritorious service to the profession of medicine, upon whom the Association may, through action of the House of Delegates, desire to bestow such membership as a special honor. Honorary members hereafter shall hold such membership as an honor and distinction and by invitation may attend meetings of the Association. They shall not be required to pay dues in the State Association. Such honor may only be bestowed by a vote or acclamation of the House of Delegates.

1.02 Qualifications: The Regular, Dues Exempt, Distinguished and Resident Members of this Association shall be the members of the component county medical societies and no county medical society shall grant membership therein on a basis that does not include membership in the district medical society and in the Indiana State Medical Association.

1.03 Rights, Privileges and Responsibilities of Members:

1.0301 Rights and Privileges by Membership Category: All members of ISMA may attend the Annual Convention. With the exception of Medical Student Members and Honorary Members, all ISMA members are eligible to vote and hold office as specified elsewhere in these Bylaws. Medical Student Members may participate in the democratic process as defined in 1.0104.

1.0302 Attendance at Annual Convention: Members attending the Annual Convention and other meetings shall register by indicating the component society of which they are members. At the Annual Convention when membership has been verified, by reference to the roster (students excepted) of members, they shall receive a badge which shall be evidence of their right to all the privileges of membership at that convention. Members may not take part in any of the proceedings of an Annual Convention until they have complied with the provisions of this section.

1.0303 Suspension or Revocation of License: No person whose license to practice medicine has been suspended or revoked or who is under sentence of suspension or expulsion from a component society, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this Association or of a component county society, or shall said person be permitted to take part in any of their proceedings until the liçense and/or county membership has been restored. This shall not apply to physicians who have surrendered their license because of retirement under the provisions of the Medical Practice Law.

2.00 INCOME AND EXPENSES

2.01 Income: Funds for carrying on the activities of the Association shall be raised by the following means:

2.0101 Dues: Membership dues to be collected may be collected by the Indiana State Medical Association or by the component county societies. The amount of dues of each component society shall be fixed by the society itself, and the amount of dues for this Association shall be fixed from time to time by the House of Delegates.

Dues are payable by January 15, and become delinquent on that date. The Board of Trustees shall have the power to suspend any member who has not paid dues in full by April 30. The member shall sacrifice all rights and privileges of membership of this Association until said annual dues are received in full by the Indiana State Medical Association.

For new members joining ISMA, dues will be calculated on a pro-rated monthly basis.

(END OF MAJOR REWRITE)

2.010101 *Dues Refund: A request for refund of dues will be acted upon by the Board of Trustees of the Indiana State Medical Association in its wisdom. A letter of certification from the county society secretary to the Executive Director of the Indiana State Medical Association to request an exemption of dues must state that the county is also exempting said dues. Upon request and approval, dues will be refunded on a monthly pro-rata basis. Dues Exempt members may receive* THE JOURNAL *upon payment of the applicable subscription price set by the ISMA Board of Trustees. With the exception of Senior members, all Dues Exempt Members will be reviewed annually, to determine their eligibility, by their county medical societies.*

2.010102 Reduced Dues: The Indiana State Medical Association dues for ~~active~~ *Regular* Members in their first year of practice following formal training shall be one-half the amount

as may be established by the House of Delegates. County medical societies ~~shall be~~ *are* encouraged to follow the same policy.

2.010103 Change in Dues Structure: The final vote on any issue calling for changes in dues or in dues structure shall be by roll call vote of the House of Delegates. Each member's vote shall be permanently recorded. ~~and no suspension of this rule will be allowed on the final vote of such an issue.~~

2.0102 Voluntary contribution.

2.0103 Revenues derived from the Association's publications.

2.0104 *Revenue derived from ISMA activities or services approved by the Board of Trustees.* ~~Upon recommendation of the Board of Trustees or any other manner approved by the House of Delegates.~~

2.0105 Assessments approved by the House of Delegates.

2.02 Expenses: Funds shall be appropriated by the Board of Trustees to defray the expenses of the Association, for publications, and for such other purposes as will promote the welfare of the profession. All motions and resolutions recommending the appropriation of funds by the House of Delegates must be referred to the ~~Board~~ *Executive Committee* for recommendation before final action is taken by the House of Delegates.

3.00 ~~ANNUAL CONVENTION ACTIVITIES~~ CONVENTION AND MEETINGS

3.01 Annual Convention: The Association shall hold a~~n Annual~~ Convention *at least annually* during which *the business and legislative sessions of the House of Delegates shall be held.* ~~there shall be held such general and section meetings as the Association, through its duly constituted officers and committees may provide for.~~

3.0101 Selection of Site: The House of Delegates shall select the place five years in advance of holding the Annual Convention. The time for the Convention shall be fixed by the Board and the Board shall have the power also to change the place for holding the Convention where conditions may create difficulties in holding a successful Convention at the place designated by the House of Delegates. Any of the component member county societies wishing to invite the Indiana State Medical Association to hold its Annual ~~meeting~~ *Convention* in its locality shall submit an invitation in writing at least five years in advance to the Board of Trustees. The Board of Trustees shall make an investigation of the facilities and in turn ~~recommend~~ *make a recommendation for* the location ~~to~~ *of* the Annual ~~meeting~~ *Conventions* for concurrence by the House.

3.02 BUSINESS AND LEGISLATION *MEETINGS*—HOUSE OF DELEGATES

(Referred to elsewhere in these Bylaws as House)

3.0201 Composition: The House of Delegates shall be the legislative and policymaking body of the Association and shall consist of *voting and nonvoting members.*

Only members of the House of Delegates are entitled to speak on the floor of the House except as defined in 3.0210.

3.020101 *Voting Members:* 1) Delegates or ~~their~~ *the* designated Alternates, elected by the component county societies; 2) Trustees or ~~their~~ *the* designated Alternates, 3) Speaker, 4) Vice-Speaker, 5) Past Presidents.

3.020102 *Non Voting Members:* 1) The *Section* Delegate or designated Alternate *Section* Delegate elected by ~~their~~ *the* respective section shall also be a member, 2) President, 3) President-Elect, 4) Executive Director, 5) Treasurer, 6) Assistant Treasurer, 7) the Delegates and *Alternate Delegates to the American Medical Association.*

3.020103 *No delegate member of the House shall lose the right to vote by virtue of any office that delegate may hold.*

3.0202 *Parliamentarian: The Speaker may appoint a Parliamentarian for the Annual Convention, who need not be a member of the House and who shall advise the House on parliamentary matters, without voting privileges as Parliamentarian.*

3.0203 Meetings

3.020301 *Regular* Meetings: The House of Delegates may meet on the day before the date set for the beginning of the general registration of the attendance at the Annual Convention. It may recess from time to time as may be necessary to complete its business, provided that its hours shall conflict as little as possible with the general or section meetings. It shall meet on the last day of the Annual Convention for the election of officers for the ensuing year and for the completion of any business previously introduced. The order of business shall be arranged as a separate section of the program. Nominations for officers of the Association may be made at any ~~meeting~~ *session* of the House of Delegates.

3.020302 *Special Meetings: Special meetings of the House of Delegates shall be called by the President upon a petition signed by thirty (30) delegates. The signed petition shall*

contain the names of at least ten (10) delegates from each of at least three (3) Trustee Districts. The President shall issue a call for same as described in 3.0404, second paragraph.

3.0204 House Admission: All sessions of the House of Delegates shall be open to all members in good standing of this Association for observation.

3.0205 Delegate Apportionment: Each component county society shall be entitled to send to the House of Delegates each year one delegate for every fifty members and one for each major fraction thereof, but irrespective of the number of members, each component society which has made its annual report and paid its assessments, as provided in this Constitution and Bylaws, shall be entitled to one Delegate, except that where a component society is made up of physicians of more than one county each county shall be entitled to at least one Delegate and one Alternate Delegate who shall be a resident of the county represented as a Delegate and who shall be selected by the physicians residing in such county. The Student Delegate shall be seated with full power to vote. In the absence of the Student Delegate, the Alternate *Student Delegate* shall be seated with full power to vote.

3.020501 Method of Determination of the Number of Delegates: The number of Delegates to which each component society is entitled shall be based upon the number of members ~~on record in the office of the Executive Director~~ in good standing with ~~current~~ dues fully paid as of December 31 of the preceding year.

3.020502 Section Delegates: All sections listed in 3.0303 of these Bylaws *and which are in compliance with 3.0302 and 3.0306 of these Bylaws* shall be entitled to send to the House of Delegates each year one Delegate or Alternate Delegate *with all rights and privileges except* the power to vote.

3.020503 Delegate Credentials: The names of duly elected Delegates and Alternates from each component society shall be sent to the Executive Director of this Association on or before February 1, prior to the Annual Convention at which such Delegates are to serve. No one shall be entitled to a seat in the House of Delegates unless a credential card as a Delegate or Alternate, properly signed by the Secretary of the appropriate county medical society *or the* Executive Secretary or Executive Director of the larger societies, is presented to the Committee on Credentials at the time of the Annual Convention.

3.0206 Quorum: Fifty (50) Delegates shall constitute a quorum.

3.0207 Authority and Responsibilities:

3.020701 Resolutions and Proposals: The House of Delegates shall approve all memorials and resolutions issued in the name of the Association before same shall become effective.

3.020701a Fiscal Note: Proposals calling for appropriation of funds by the House of Delegates shall be accompanied by a fiscal note and shall be submitted to the Executive Committee and the Board for review, presentation and recommendation for final action of the House. No proposal calling for appropriations shall be considered if not accompanied by a fiscal note.

3.020701b *Deadlines for Resolutions:* Except as noted in 3.020701c and in *3.021102* ~~Section 8, Paragraph B,~~ all resolutions to be presented to the House of Delegates for action shall be prepared and mailed to the Executive Director of the Association so that they will be received not later than 45 days prior to the ~~meeting~~ *session* of the House of Delegates to which the resolutions will be presented for action.

3.020701c *Late Resolutions: Except for matters of extreme emergent nature, all late resolutions must be received by the Executive Director seven (7) days prior to the opening session of the House of Delegates. Those resolutions received after forty-five (45) days prior to the first session of the House of Delegates will be referred to the Committee on Rules and Order of Business. The Committee on Rules and Order of Business shall submit a report to the House concerning all items considered by same with recommendation(s) limited to the appropriateness of consideration of said resolutions.*

The Committee on Rules and Order of Business will meet approximately seven (7) days prior to the Annual Convention. Provided, that where a resolution has been first submitted to the Committee on Rules and Order of Business together with a written statement setting forth the

reasons why the resolution was not mailed to the Executive Director more than forty-five (45) days prior to the ~~meeting~~ *first session* of the House of Delegates and also setting forth in the written statement the reasons why the resolution is of such an emergency nature that it cannot wait until the next meeting of the House, and that the ~~Committee on Rules and Order of Business has approved said resolution~~ *House in considering the report of the Committee on Rules and Order of Business determines it is appropriate to consider* said resolution for submission to the House and that each Delegate shall be furnished a copy ~~before the next meeting of the House~~ then ~~this~~ subsection 3.020701b *of these* Bylaws may be suspended ~~with respect to the resolution~~ upon a two-thirds vote of the House of Delegates.

3.0208 Election of Delegates to the American Medical Association: The House of Delegates shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body. In the event of a permanent vacancy occurring among the AMA Delegates, the remaining ~~delegation~~ *elected Delegates and Alternates* to the AMA shall meet and nominate one of the Alternates to assume the vacancy until the next meeting of the Indiana State Medical Association House of Delegates, at which time the House will fill such vacancy. The nominated member proposed by the AMA delegation shall be subject to the confirmation of the Board of Trustees.

3.0209 Organizing Districts: ~~and Sections~~ The House of Delegates ~~may~~ *shall* provide ~~for a division of the scientific work of the Association into appropriate sections~~ *districts,* ~~and~~ for the organization of such Trustee District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies. Trustee districts shall be defined by the House of Delegates. The House shall divide the state into Trustee Districts, specifying which counties each district shall include, and when the best interest of the Association and profession will be promoted thereby, organize in each district a medical society, and all members of component county societies, and no others, shall be members of such district societies.

3.0210 Authority to Appoint Special Committees: The House shall have the authority to appoint committees for special purposes from among members of the Association who need not be members of the House of Delegates. Such committees shall report to the House of Delegates, and the members of such committees may be present and participate *on the floor* in the debate of their reports.

3.0211 Reference Committees and Committee on Rules and Order of Business:

3.021101 Reference Committees: Immediately after the organization of the House of Delegates at each Annual Convention, the Speaker shall announce the membership of the Reference Committees to serve during the convention for which they are appointed. Appointments of these Reference Committees shall be made by the Speaker. ~~with the assistance of the President~~ The Chairman of each committee shall also be appointed by the Speaker. ~~with the assistance of the President and they~~ *The Speaker* shall also appoint such additional House committees as the House may approve. All committees hereunder shall serve only during the convention at which they are appointed. Appointments shall be made in time to be published in THE JOURNAL and the Handbook prior to such Annual Convention. The Speaker ~~with the assistance of the President~~ shall have the power to appoint substitutes from among members present for absent appointees. Each committee shall consist of at least five *ISMA* members, three of whom including the chairman, shall be delegate-members of the House. ~~unless otherwise provided.~~ To these committees shall be referred all reports, resolutions, measures and propositions presented to the House of Delegates, except matters as properly come before the Board, and the recommendations of these committees shall be submitted to the next ~~meeting~~ *session* of the House of Delegates for acceptance in the original or modified form or for rejection.

3.021102 Responsibilities of Reference Committees: Four or more Reference Committees ~~designed~~ *designated* by numerals are hereby constituted to which all matters shall be referred, at least one of which shall be organized for the sole purpose of studying the addresses of the President, President-Elect, report of the Executive Director, and

Chairman of the Board of Trustees. This Committee shall be ~~mandated~~ *expected, as it deems appropriate,* to translate recommendations made by these officers through resolutions for presentation to the House. Where a report, resolution, measure or proposition deals with more than one subject matter, reference thereof, may ~~in~~ *at* the discretion of the Speaker of the House, be made (a) to as many Reference Committees as are necessary to cover all subjects included therein; or (b) to only one Reference Committee which the Speaker deems has within the scope of its reference the most important part of the matter referred.

No report of any Reference Committee shall be rejected on the ground that it covers something not included in the matters which such Committee was created to consider.

3.021103 Time and Place of Meetings: The time and place of meetings of all Reference Committees shall be publicly posted, and all meetings of all Reference Committees shall be open *only* to ~~all~~ members of *this* Association. Officers and chairmen of all *commissions* and committees whose reports are referred to Reference Committees ~~shall have the right~~ *are expected* to appear and be heard before the respective committees to which such references are made in regard to their reports.

3.021104 *Non-Member Attendance:* Persons who are not members of the Indiana State Medical Association and seek to appear and present their technical or reference material to the Reference Committee must receive approval to appear on that specific subject from the Reference Committee *Chairman.* ~~Non-Indiana State Medical Association members~~ *Such persons* must register as guests at the committee and be at the call of the Reference Committee *Chairman* for testimony, after which they may be excused from further attendance.

3.021105 Committee on Rules and Order of Business: The Committee on Rules and Order of Business shall be composed of the Chairmen of the various Reference Committees appointed by the Speaker. *This committee shall be charged with the duties as set forth in 3.020701c of these Bylaws.*

3.0212 Election of Officers: The officers of this Association with the exception of the Executive Director *and the Board of Trustees* shall be elected by the House of Delegates, as the first order of business at the final ~~meeting~~ *session* of the House of Delegates, and no person shall be elected to any such office who has not been an active member of the Association for the preceding two years.

The officers, except the Executive Director *and the Trustees,* shall be elected annually. All officers shall serve until their successors are elected and installed.

3.021201 Method of Election: All elections shall be by ballot and a majority of the votes cast shall be necessary to elect. In case no nominee receives a majority on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken.

3.021202 Terms: The President, President-Elect, Speaker, Vice-Speaker, Treasurer and Assistant Treasurer shall serve from the termination of the annual meeting of the House of Delegates in which ~~the President-Elect, Treasurer and Assistant Treasurer~~ *all but the President* are elected until the termination of the succeeding annual meeting of the House of Delegates.

3.021203 Oath: The officers of the Association shall be installed by taking the following oath of office to be administered by the out-going President of the Association at the final ~~meeting~~ *session* of the House of Delegates:

Oath

I, , solemnly swear that I shall carry out to the best of my ability, the duties of the office of the Indiana State Medical Association to which I have been elected.

I shall strive constantly to maintain the ethics of the medical profession and to promote the public health and welfare. I shall dedicate myself and my office to improving the health standards of the American people and to do the task of bringing increasingly improved medical care within the reach of every citizen.

I shall uphold the Constitution of the United States of America and of the State of Indiana, the Constitution and Bylaws of the American Medical Association and the Constitution and Bylaws of the Indiana State Medical Association at all times.

I shall champion the cause of freedom in medical practice and freedom for all my

fellow Americans. To these duties and obligations, I pledge myself, so help me God.

3.03 MEETINGS OF SPECIALTY SECTIONS

3.0301 *Purpose: The purpose of Specialty Sections of ISMA is to provide a forum in ISMA and the House of Delegates, to have an active input into the scientific meeting, to introduce resolutions and have a voice on the floor of the House.*

3.0302 *Meetings: Each section will be required to have a minimum of one meeting annually. Minutes of the meeting will be required. A copy of the minutes and the names of the officers shall be forwarded to the Speaker of the House and will become a permanent record of the House.*

3.0303 Official Sections: During the Annual Convention the Association in addition to the general meetings may hold the following section meetings:

3.030301 Allergy
3.030302 Anesthesia
3.030303 College Health Physicians
3.030304 Cutaneous Medicine
3.030305 Directors of Medical Education
3.030306 Emergency Medicine
3.030307 Family Physicians
3.030308 Internal Medicine
3.030309 Interns and Residents
3.030310 Medical Directors and Staff Physicians of Nursing Facilities
3.030311 Nervous and Mental Diseases
3.030312 Neurological Surgery
3.030313 Nuclear Medicine
3.030314 Obstetrics and Gynecology
3.030315 Ophthalmology
3.030316 Orthopedic Surgery
3.030317 Otolaryngology, Head and Neck Surgery
3.030318 Pathology and Forensic Medicine
3.030319 Pediatrics
3.030320 Preventive Medicine and Public Health
3.030321 Radiology
3.030322 Surgical
3.030323 Urology

3.0304 *Formation of Sections:* ~~All~~ *Any* future section ~~may~~ *can only* be formed by a properly constituted resolution ~~which~~ *and* shall include the signatures of a minimum of fifteen (15) members or 25% of the members, whichever is greater, who are practicing that specialty in the state of Indiana. *The resolution shall be subject to the decision of the House of Delegates.*

3.0305 Officers: The officers of each section shall be a Chairman, a Vice-Chairman, and a Secretary, and they shall preside over the meetings of the section and shall be responsible to the Commission on Convention Arrangements for the section speakers and papers.

3.0306 Officer Elections: *The election of officers shall be held at a meeting of the section annually. The names of the officers shall be forwarded to the Speaker, and will become a permanent record of the House.*

3.0307 Restriction on Meetings: No section meeting shall be allowed to conflict with a general meeting.

3.0308 *Failure to Comply: Any section not complying with the preceding shall not have a delegate in the House.*

3.04 MEETINGS FOR THE GENERAL MEMBERSHIP

3.0401 General Meetings for the Membership: General Meetings shall mean all meetings planned for attendance by all registered members and shall include those meetings in which guests of registered members or the general public are also invited. The address of the President may be delivered in a General Meeting, and the programs of General Meetings shall be arranged by the Executive Committee except where scientific papers are included, in which event the scientific part of the program shall be arranged by the Commission on Convention Arrangements, with the sanction and approval of the officers.

3.0402 *Purposes of Meetings for the General Membership: Meetings of the Association:*

3.040201 *Scientific Presentations and Discussions. (Quorum NOT necessary)*

3.040202 *Dissemination of Information of Interest to the General Membership. (Quorum NOT necessary)*

3.040203 Appointment of Committees: The General or Section Meetings may recommend to the House of Delegates the appointment of committees or commissions for scientific investigation of special interest and importance to the profession and public. *(Quorum NOT necessary)*

3.040204 *Issue Mandates to the House: Matters of vital concern to the general membership may be referred to the House of Delegates who shall act as expeditiously as possible utilizing the usual parliamentary procedures in order to serve the needs of the profession in the most equitable fashion. (QUORUM NECESSARY)*

3.040205 *Order Referendums: As described in 9.01 (QUORUM NECESSARY)*

3.0403 *Quorum for General Membership Meetings: For the purpose of transacting official business, a quorum of one hundred fifty (150) members must be present at a General Meeting of the Association.*

3.0404 Special Meetings *for the General Membership:* Special Meetings ~~of either the Association or the House of Delegates~~ *for the general membership* shall be called by the President upon receipt of a petition signed by one hundred (100) members ~~provided that said petition contains the names of at least thirty-four (34) members from each of at least three (3) Board~~ *Trustee* ~~districts.~~ *representing a minimum of three (3) Trustee districts, with no one district providing more than thirty-four (34) of the required one hundred (100) signatures.*

Upon receipt by the President of such a petition, the President shall within thirty (30) days thereafter issue a call for such special meeting, *and shall state the items of business to be considered,* at a time and place ~~to be~~ fixed by the President. The President, in specifying the time of such special meeting, shall fix the same as soon thereafter as reasonable and suitable arrangements can be made.

4.00 OFFICERS

4.01 Composition: The officers of this Association shall be a President, a President-Elect, the Immediate Past President, an Executive Director, a Treasurer, an Assistant Treasurer, a Speaker, a Vice-Speaker, each of whom shall be a member, except the Executive Director, who need not necessarily be either a physician or a member.

4.0101 Limitation: The ~~above~~ offices of President, President-Elect, the Immediate Past President, Treasurer, Assistant Treasurer, Speaker, Vice Speaker, as well as AMA Delegates, AMA Alternate Delegates, and ISMA Trustees and ISMA Alternate Trustees are major offices. Individuals may not hold more than one major office during a given term and must resign from a major office if they attain a second.

4.0102 Delinquent Dues: A major office holder in ISMA who is delinquent in paying dues will not be allowed to vote in that capacity until annual dues are paid in full.

4.02 Removal, Death, Resignation, Vacancy: Any officer may be removed from office after a hearing before the Board on thirty (30) days notice, on charges in writing, upon a vote of three-fourths of the members of the Board.

In the event of the death, resignation, removal or permanent disability of any officer of this Association whose successor is not otherwise provided for in these Bylaws, the vacancy shall be filled by the Board of Trustees until the next official meeting of the House. The Board shall fill a vacancy in the office of Treasurer or Assistant Treasurer by an election by the Trustees at the next regular meeting of the Board following the occurrence of such vacancy.

4.03 Duties

4.0301 President: The President, or a member designated by the President shall preside at all general meetings of the Association. The President shall appoint all committees not otherwise provided for; *shall appoint the chairman of each commission and committee; shall fill the vacancies resulting from the expiration of terms of members of commissions, and also appoint members to fill the unexpired term where any vacancy occurs. The President will have the power, with the approval of the Board, to remove any member of any committee or commission as defined in 7.04. Within 60 days after the Annual Convention, the President may call all commissions and committees into a joint meeting as defined in 7.06. Charters of county societies as defined in 11.01, and approved by the Board shall be signed by the President and Executive Director.*

Special meetings of either the Association or the House of Delegates shall be called by the President as defined in 3.020302 and 3.0404 of these Bylaws.

The President shall deliver an annual address at such time as may be arranged by the Executive Committee, and shall perform such other duties as custom and parliamentary usage may require. The President shall be the real head of the profession of the state during the term of office, and as far as practicable, shall visit by appointment the various sections of the state and assist the trustees in building up the county societies and in making their work more practical and useful.

Ex-officio, the President shall be a member of all commissions, committees and the Board of Trustees.

4.0302 President-Elect: The President-Elect's term of office shall be for one year, at the completion of which the President-Elect succeeds to the presidency. The President-Elect shall assist the President in the discharge of duties. Ex-Officio, the President-Elect shall be a member of all commissions and committees.

In the event the office of President is vacant, the President-Elect will assume the office of President.

4.0303 Treasurer: The Treasurer shall give bond at the expense of the Association in such an amount as shall be required by the Board unless included in the coverage of a blanket or position bond. The Treasurer shall receive all bequests and do-

nations to the Association and shall demand and receive all funds due the Association in the conduct of its business. The funds of the Association shall be deposited in a depository or depositories designated by the Executive Committee, and withdrawals from such funds shall be made on checks or drafts signed by the Treasurer, *the Assistant Executive Director,* and/or other officers of the Association as the Executive Committee may designate. The Treasurer shall present to the House of Delegates annually a report of the receipts and expenditures, and the state of funds on hand.

4.0304 Assistant Treasurer: The Assistant Treasurer shall give bond at the expense of the Association in such amount as shall be required by the Board unless included in the coverage of a blanket or position bond. In case of death or incapacity of the Treasurer, the Assistant Treasurer shall succeed to all the duties and rights of the Treasurer until a new Treasurer is elected. In the absence of the Treasurer, the Assistant Treasurer shall attend to the duties and rights of the Treasurer during such absence and shall also perform such duties of the Treasurer as may be delegated and assigned by the Treasurer.

4.0305 Executive Director: The Executive Director shall be the directing manager of the Association's headquarters and THE JOURNAL offices, and shall supervise the work of all salaried employees in the Association offices. Such supervision shall be subject to directives from the House of Delegates, the Board, the Executive Committee, and the President of the Association. The Executive Director shall discharge the administrative functions of the Association not within the duties of other officers or of committees to perform. The Executive Director shall assist, at their request, all officers and committees, and shall keep informed in regard to nonprofessional matters affecting the medical profession, for the purpose of keeping qualified to perform the services herein mentioned. The Executive Director shall be responsible for the execution and carrying out of the policies of the Association and in that connection shall perform all specific tasks required by the committees, the Board and the officers of this Association.

A major office holder whose dues are delinquent will be personally notified of this delinquency by the Executive Director of ISMA. The amount of the Executive Director's salary shall be fixed by the Executive Committee on approval of the Board.

4.0306 Speaker: *The Speaker shall be elected annually from the membership of the House.* The Speaker shall preside at all meetings of the House of Delegates and shall perform such duties as ~~*specified in 5.00 and*~~ as custom and parliamentary usage require. *The Speaker shall have the right to vote as a delegate member of the House.* ~~The Speaker is entitled to vote when the vote is by ballot. In all other cases, the Speaker shall have the right to vote only in case of a tie.~~

The Speaker may address the House of Delegates at the opening ~~meeting~~ *session* of all conventions, limiting the address to matters of conduct and procedure of the House.

The Speaker shall be further charged with the duties as defined in these Bylaws (e.g., 3.0202, 3.021101, 3.021102 and 3.0302). Ex-officio, the Speaker shall be a member of all commissions and committees and the Board of Trustees of this Association without the power to vote. Training in parliamentary procedure shall be mandatory for the Speaker and shall be provided at the expense of the Association. *In the event the offices of President and President-Elect are vacant, the Speaker of the House of Delegates will assume the office pro tem until the next called or regularly scheduled meeting of the House when a President and a President-Elect will be elected.*

4.0307 Vice Speaker: *The Vice Speaker shall be elected annually from the membership of the House.* The Vice Speaker of the House of Delegates shall officiate at meetings in the absence of the Speaker or at the request of the Speaker. *The Vice Speaker shall have the right to vote as a delegate member of the House.* Ex-officio, the Vice Speaker shall be a member of all commissions and committees and the Board of Trustees of this Association without the power to vote. Training in parliamentary procedure shall be madatory for the Vice Speaker and shall be provided at the expense of the Association.

4.04 Expenses: The necessary expenses of the above officers incurred in the line of duty herein imposed shall be allowed for in the budget but, excepting the Executive Director, this shall not include the expenses of attending the Annual Convention.

5.00 BOARD OF TRUSTEES

(Referred to elsewhere in these Bylaws as Board)

5.01 Composition/Voting Power: The Board of Trustees shall consist of: 1) The Trustees with power to vote and their duly elected Alternates, each of the latter without power to vote except when the Trustee is

not in attendance; and 2) ex-officio, the President, President-Elect, Treasurer, Immediate Past President with power to vote, Assistant Treasurer without power to vote except in case the Treasurer is not in attendance, and the Speaker, Vice Speaker, and Executive Director without power to vote.

5.02 Authority: The Board shall be the executive body of the Association with full power to ~~fill vacancies or~~ transact any business that emergencies or the welfare of the Association may require, and perform and exercise all of the rights and duties as specified in this ~~chapter~~ *section.*

5.0201 The Board will declare major office holders who are delinquent in paying their dues as suspended from the office after February 1, at which time such officers shall sacrifice all rights and privileges of the office until said dues are received in full by ISMA.

5.03 Election: Trustee and Alternate. The Trustees shall be elected by the respective district societies. If any district fails to meet and elect its Trustee(s) or Alternate Trustee(s) by the time of the expiration of the incumbent's term of office, the Executive Director of the Association shall cause a special meeting to be called by said district society for the purpose of such election.

5.04 Meetings and Terms:

5.0401 Regular Meetings: The Board shall meet as follows: 1) The Board shall meet at least once each quarter of the calendar year, the time, date and location to be fixed by the Board. 2) On the day preceding the first day ~~for~~ *of* the scientific meetings of the Annual Convention of the Association. 3) On the last day of the Annual Convention of the Association after the adjournment of the House of Delegates. 4) At such other times as necessity may require, subject to the call of the Chairman. ~~or on petition of three Trustees~~ It shall hold no meeting that will conflict with any meeting of the House of Delegates. Notice of each regular meeting shall be given at least ten (10) days before such meeting.

5.0402 Special Meetings: Special meetings may be called at any time by the Chairman or at the request of seven (7) members of the Board. Notice shall be given at least five (5) days before each special meeting. The notice shall specify the general purpose of and business to be transacted at the meeting.

Delete following paragraph: It shall elect a . . . . .

5.0403 Quorum: Twelve (12) members of the Board shall constitute a quorum.

5.0404 Attendance at Meetings: If any elected Trustee fails, without reason acceptable to the Board, in any calendar year to attend a majority of the meetings of the Board, said person shall thereby cease to be a Trustee, and the Executive Director shall take action in accordance with 5.05.

5.0405 Meeting Notices: Notice is given if delivered in person, by telephone, mail or telegram. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail, addressed to a Trustee (and other persons entitled to notice) at the Trustee's address then appearing on the records of the Association, with postage prepaid, and if given by telegraph, shall be deemed delivered when the telegram is delivered to the telegraph company.

Notice of any meeting and the object ~~or~~ *of* business to be transacted at a meeting of the Board ~~need~~ *need* not be given if waived in writing, or by telegraph, mail, or telephone before, during, or after such meeting. Attendance at any meeting shall constitute a waiver of notice of such meeting except where attendance is for the express purpose of objecting to the transacting of any business because the meeting is lawfully called or convened.

5.0406 Terms of Trustees: Terms of Trustees shall begin with the first meeting of the Board following the final session of the House of Delegates at the Annual Convention.

The term of the elected Trustees shall be for three years and approximately one-third of the number shall be elected annually. No Trustee shall be eligible to serve longer than two *terms* consecutive*ly.* ~~three year terms.~~

The time given to serving an unexpired term shall not be considered in determining the period within which a Trustee may serve consecutively.

5.0407 Alternate Trustees: Each Trustee district shall elect an Alternate Trustee whose term of office shall be for three (3) years. The Alternate Trustee shall be elected in a year during which the Trustee is not elected. No Alternate Trustee shall be eligible to serve longer than two *terms* consecutive*ly.* ~~three year terms.~~ The time given to serving an unexpired term shall not be considered in determining the period within which ~~a Trustee or~~ *an* Alternate Trustee may serve consecutively.

5.05 Vacancies: In the event of a vacancy occurring from any cause, except expiration of the term of office, in the office of a District Trustee, the duly elected Alternate Trustee from the same district shall succeed to the office of the Trustee in that District for the unexpired term of said Trustee. In the event the Al-

ternate Trustee succeeds the Trustee for any cause, with the exception of expiration of term of office, the President of the District Medical Society shall assume the office of Alternate Trustee until such time as a new Trustee is elected. In the event vacancies occur in any Trustee District in the offices of both Trustee and Alternate Trustee, the vacancies shall be filled by an election by the members of the Association within the Trustee District in which the vacancies occur. A call for such elections shall be issued by the Executive Director of the *Indiana* State *Medical* Association following a conference(s) with the officers of the District organization. The call shall state the time and place of holding the election and shall be sent registered mail to the County Secretary, as filed in the *Indiana* State *Medical* Association *Executive* Director's office, of each component society within the District. Such call shall be mailed within ten (10) days after the ~~State Director~~ *Executive Director of ISMA* has learned of the vacancies. The election may be held at a ~~special or~~ regular meeting at which business other than the election may be transacted. Such election shall be within fifteen (15) days after the *Executive* Director of the *Indiana* State *Medical* Association shall have mailed such call.

5.06 Organization and Duties: Immediately following the conclusion of the Annual Convention, the Board shall organize by electing a Chairman, *who shall serve for one year; and a Clerk who, in the absence of the Executive Director of the Association, shall keep a record of its proceedings and who in the absence of the Chairman will act as Chairman Pro-Tem. It shall, through its Chairman, make an annual report to the House of Delegates. The Chairman of the Board shall be elected by secret ballot. The number of terms of the Chairman shall be limited to not more than three (3) in succession.* The chairman of the Board of Trustees shall be an ex-officio member of all ISMA standing commissions and committees.

Delete following paragraph: The Board of Trustees at its . . . . .

5.0601 *Election of At-Large Members to Executive Committee: The Board shall, at its meeting following the close of the House of Delegates, elect two (2) members of the Association, at large or of the Board, who, with the President, the President-Elect, the Immediate Past President, the Chairman of the Board, the Treasurer, the Assistant Treasurer, with the power to vote in the absence of the Treasurer, and ex-officio the Speaker and Vice Speaker shall constitute and be known as the Executive Committee. Members of the Committee shall serve until the next organization meeting of the Board and until their successors are elected and qualified. If such members of the Executive Committee not be members of the Board they shall not have the power to vote in the Board.*

The Executive Committee shall have the power and duties as may be defined from time to time by action of the Board of Trustees.

5.0602 *Conduction of Business:* The Board shall perform all acts and transact all business for or on behalf of the Association and manage the property and conduct the affairs, work and activities of the Association, except as may be otherwise provided in the Constitution or the Bylaws. All resolutions and recommendations of the House calling for the expenditure of funds passed by the House of Delegates shall be referred to the Executive Committee, which shall determine whether the expenditures are advisable and so inform the Board of Trustees. If ~~it~~ *the Board of Trustees* ~~decided~~ *decides* that the expenditure(s) is inadvisable, the Board shall report, at its earliest convenience, to the House of Delegates the reasons for its action.

In no instance may the Executive Committee or the Board of Trustees fail to implement a mandate of the House of Delegates for reasons other than fiscal impossibility, budgetary restrictions or legal ramifications.

5.0603 JOURNAL and Other Publications: The Board shall provide for the publication of and determine the editorial policies, in accordance with the policy enunciated by the House of Delegates, of 1) THE JOURNAL of the State Association, 2) publications as it may deem expedient, 3) a publication for public information and dissemination and 4) all proceedings, transactions and memoirs.

The Board shall provide for and superintend all publications of the Association, and shall appoint an editor and an editorial board, as it deems necessary, and fix the amount of their salaries. The proceedings of the Board for the year shall be reported to the House of Delegates at the Annual Convention and be published in the issue of the THE JOURNAL which immediately precedes the Annual Convention. *The Board shall* appoint an editor or editors for all the Association's publications.

5.0604 Employ Executive: *The Board shall* employ the Executive Director, and fill any vacancy therein, who shall be the person to manage and direct the activities of the Association under the authority granted by the Board.

5.0605 Financial Reports: *The Board shall* have the ac-

counts of the Association audited at least annually.

5.0606 County Visitation, Expenses and Reports: Each Trustee shall be organizer, peacemaker, and censor for the represented district. The Trustee shall visit the counties in the represented district at least once a year for the purpose of organizing component societies where none exist; for inquiring into the condition of the profession, and for improving and increasing the zeal of the county societies and their members. The Trustee shall make an annual report of official work and of the condition of the profession of each county in the represented district, the same to be published in the number of THE JOURNAL which is issued immediately preceding the Annual Convention. The House of Delegates may take such action, if any, as it deems appropriate upon such reports. The necessary expenses incurred by such Trustee in the line of the duties herein imposed may be allowed by the Board on a properly itemized statement, but this shall not be construed to include the Trustee's expense in attending the Annual Convention of the Association.

5.0607 Organizing County Societies: The Board shall make careful inquiry into the condition of the profession of each county in the state and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly relations among physicians of the same locality and shall continue these efforts until every physician in every county of the state who can be made reputable has been brought under medical society influence. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies to be designated by hyphenating the names of two or more counties so as to distinguish them from district and other classes of societies; and these societies, when organized and chartered, shall be entitled to all the privileges and representation provided herein for county societies, until such counties may be organized separately.

5.0608 Scientific Work: The Board shall, through its officers and otherwise, give diligent attention to and foster the scientific work and spirit of the Association, and shall study and strive constantly to make each Annual Convention a stepping stone to future ones of higher interest. The Board shall encourage postgraduate and research work, as well as home study, and shall endeavor to have the results utilized and intelligently discussed in the county societies.

5.0609 Interest of the Profession: The Board shall, in connection with the House of Delegates, consider and advise as to the interests of the profession and of the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation and to diffuse popular information in relation thereto.

5.0610 Charters: The Board shall, upon application, provide and issue charters to county societies organized to conform to the spirit of this Constitution and Bylaws. *The charters of county societies are defined in 11.01.*

5.0611 Board of Censors: The Board shall be the Board of Censors of the Association. It shall consider all questions involving the rights and standings of members whether in relation to other members, to the component societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the General or Section meetings shall be referred to the Board without discussion. It shall hear and decide all questions of discipline affecting the conduct of members of component societies on which an appeal is taken from the decision of an individual Trustee, and its decision in all such matters shall be final.
Delete the following paragraph: Election of at . . . . .

5.0612 Duties of Alternate Trustee: The duties of the Alternate Trustee shall be: 1) To represent the Trustee District when the regularly elected Trustee is not in attendance. 2) To vote only when the Trustee is not in attendance either in the House of Delegates or in the Board meetings.

6.00 THE EXECUTIVE COMMITTEE

6.01 Composition: The Executive Committee, consisting of seven (7) voting members, constituted as provided in 5.0601 of these Bylaws, shall hold its first meeting immediately following the meeting of the Board held at the close of the last session of the House of Delegates at the Annual Convention, and shall organize by electing its Chairman. If the Executive Committee is unable to select a chairman within thirty (30) days after the final session of the House of Delegates, then a meeting of the Board of Trustees shall be called

and a Chairman of the Executive Committee shall be selected by the Board of Trustees. Its Secretary shall be the Executive Director of the Association. It shall meet with the Executive Director on the call of the Chairman, or of any three (3) members, to plan and execute such work as may be necessary for the welfare of the Association and the conduct of the Executive Director's office and such other duties as the Board may specify. It shall have all jurisdiction with respect to medical defense activities of the Association, and shall be governed by the rules it adopts concerning that activity and by the Bylaws of this Association. It shall make decisions for the Association, including matters pertaining to THE JOURNAL during the intervals between the meetings of the board, and shall report its actions to the Board.

6.02 Budget Responsibility: It shall prepare a budget for the ensuing fiscal year; and all expenditures of the Association, except those otherwise provided for under the Constitution and Bylaws, shall be governed by the budget. No expense not provided for in the budget or otherwise under the Constitution and Bylaws shall be incurred by any officer, commission or committee. A committee, commission or officer may submit a request for funds to meet unusual expenses not included in the annual budget, and the Executive Committee shall have the power, by a two-thirds vote, to amend the budget to provide such funds. *All resolutions and recommendations of the House of Delegates calling for the expenditure of funds passed by the House of Delegates shall be referred to the Executive Committee.*

6.03 Investment Surplus Funds: The investment of all surplus funds of this Association shall be under the direct control and management of the Executive Committee subject to instructions in regard thereto which may be given by the Board at its option. The Executive Committee shall have the right and is encouraged to obtain advice and counsel *of recognized financial experts* in regard to the discharge of the duties covered by this section of the Bylaws.

6.04 Student Loan: The Executive Committee shall have the authority to make loans to medical students in accordance with the terms and conditions under which funds are made available for that purpose. Rules and regulations adopted shall be subject to the approval of the Board. The Executive Director shall have the duty and responsibility of keeping minutes of all transactions and shall file a copy of such minutes, as well as a copy of all papers pertaining to any applications or loans, in the Headquarters Office of the Association.

6.05 Vacancy: A vacancy on the Executive Committee shall be filled by an election by the Trustees at the next regular meeting of the Board following the occurrence of such vacancy.

7.00 ORGANIZATION OF ACTIVITIES AND RESPONSIBILITIES

7.01 Creation of Committees and Commissions: The organization of the Association, the performance of which is not provided elsewhere in the Constitution and Bylaws, and is not carried on in the meetings of the Board or of the House of Delegates, or by special committees created by the Executive Committee, the Board or the House of Delegates, may be performed by the following committees and commissions.

7.0101 The Committees are as follows:

7.010101 The Future Planning Committee

7.010102 The Grievance Committee

7.010103 The Indiana Medical Education Fund Committee

7.010104 The Medico-Legal Committee

7.010105 The Negotiations Committee

7.0102 The Commissions are as follows:

7.010201 COMMISSION ON CONSTITUTION AND BYLAWS

7.010202 COMMISSION ON CONVENTION ARRANGEMENTS
This commission encompasses the field of:
Specialty Medicine

7.010203 COMMISSION ON LEGISLATION
This Commission encompasses the fields of:
State Legislation
Federal Legislation

7.010204 COMMISSION ON MEDICAL EDUCATION
This Commission encompasses the fields of:
Accreditation
Education Program

7.010205 COMMISSION ON MEDICAL SERVICES
This Commission encompasses the fields of:
Aging
Emergency Medical Services
Governmental Medical Service Programs
Medical Economics and Insurance
Public Health
Sports and Medicine
Voluntary Health Agencies

7.010206 COMMISSION ON PHYSICIAN IMPAIRMENT
This Commission encompasses the fields of:
Alcoholism

Drug Abuse
Neuropsychiatric Illness
Physical Infirmity

7.010207 COMMISSION ON PUBLIC RELATIONS
This Commission encompasses the fields of:
Interprofessional Relations
Public Information
Special Activities

7.02 Committee Structure: Except as otherwise stated in the Bylaws, ~~with specific reference to 8.01~~, a committee shall consist of not less than four (4) nor more than five (5) members, appointed from the general membership of the Association and shall be appointed annually by the President. The President shall also appoint the Chairman of each committee. The Committee Chairman shall appoint a Vice Chairman.

7.03 Commission Structure: The President may appoint one commission member of each six hundred (600) active members *of a trustee medical district* or *a* major fraction thereof, but in any event, each district shall have one (1) member on each commission.
The original appointees in each commission shall be divided into three (3) groups by lot. The first group shall serve three (3) years; the second, two (2) years; and the third, one (1) year. Thereafter, each incoming President shall appoint ~~five~~ members of each commission to fill the vacancies resulting from the expiration of the terms of members, and such appointments shall be for three (3) years. The President shall also appoint members to fill the unexpired term where any vacancy occurs through death, resignation or otherwise. *The President may appoint a maximum of three (3) At-Large members for a term of one (1) year, with the right to vote, to each commission.* The President shall appoint the Chairman of each commission. The Commission Chairman shall appoint a Vice Chairman.

7.04 Removal of Members: The President shall have the power, with the approval of the Board, to remove any member of any committee or commission where such member, for any reason, does not or cannot work at attempting to perform the duties pertaining to membership on such committee or commission.

7.05 Terms: Unless otherwise provided in the Bylaws, no member of a commission shall serve on the same commission more than two (2) consecutive terms, but this shall not prevent ~~his~~ *the member from* serving more than two (2) terms if the term of another member intervenes. The time given to the serving of an unexpired term shall not be considered in determining the period within which a member may serve consecutively.

7.06 Initial Meeting: Within sixty (60) days after the meeting of the ~~State~~ *Annual* Convention, the President ~~will~~ *may* call all commissions and committees into a joint meeting in order to give a statement of the duties and responsibilities of all committees and commissions, call special attention to any immediate problems confronting the Association, and assign such problems or parts thereof to appropriate committees and commissions. In these meetings, the commissions may provide for such subcommissions within the separate commissions as they may deem advisable. Each committee or commission shall have the right to call upon other committees, commissions or members of the profession for counsel and advice with respect to its work.

7.07 Coordination of Activities: Each committee and commission shall have the privilege and is encouraged to have joint meetings with any like committee or commission of the Auxiliary where such like committee or commission exists, for the purpose of coordinating activities to make them more effective in the medical service of the public and the intent of the Association.

7.08 Duties and Responsibilities: Each committee and commission shall have the duty and responsibility of keeping constantly and currently informed on the matters within the area of its special interest and activity of studying the conditions within that area with the purpose of finding possibilities for improvement; of finding the best solutions it can to the specific problems referred to it; of contributing in its area to the achievements of the Association as a whole in the protection and improvement of the health of the whole human family and finally of making all its efforts useful by passing on to the Association in the most effective manner possible the results of its studies and activities in its own area of special interest.

7.0801 The Future Planning Committee: The function of this committee shall be to study and anticipate future trends and to stimulate the various commissions in coordinated directions so there is a concord to the entire operation of Indiana State Medical Association. It is not contemplated that it be an operational committee.

7.0802 The Grievance Committee: The duties of this committee shall be to receive complaints, appeals or suggestions from physicians or lay persons concerning professional conduct. It shall attempt to find the facts regarding any matter brought to its attention, through procedures proper and appropriate to that end, and shall attempt to adjust differences between patients and physicians. It may, if it believes the facts justify such, cite a member of the *Indiana State*

Medical Association to the Board of the *Indiana* State *Medical* Association. It shall, subject to the approval of the Board, draw up a set of rules and regulations governing its procedure and official action.

7.0803 The Indiana Medical Education Fund Committee: The purpose of this committee shall be to promote, develop and improve medical education in the Indiana University School of Medicine for the general benefit of the entire public by obtaining and using funds from private sources to accomplish that result. The funds collected will be deposited in a trust and at periodic intervals the committee shall make a distribution from the trust to be used by the Indiana University School of Medicine. The Indiana Medical Education Fund Committee shall consist of eight (8) persons, five (5) of whom shall be from the Indiana State Medical Association, appointed by the President thereof, all of whom shall be voting members. There shall be three (3) additional members of the committee who shall be ex-officio and non-voting and they shall be the Dean of the Indiana University School of Medicine, or the Dean's designee, the President of the Indiana State Medical Association, and the Executive Director of the Association who shall also act as Secretary of the Committee. The actions of this *committee* shall be certified to the Executive Committee. Each year a report of the Committee's activities, including a financial accounting report of the fund itself as administered by the trustee, shall be made part of the Executive Committee's annual report to the House of Delegates. The five (5) members shall serve staggered terms to insure continuity. Two (2) members shall be appointed to serve three (3) year terms, two (2) shall serve two (2) year terms, and one (1) shall serve a one (1) year term.

7.0804 The Medico-Legal Review Committee: The Medico-Legal Review Committee shall consist of three (3) members selected from the Indiana State Medical Association whose duty it shall be to meet in joint session and work with a similar committee of three (3) members of the *Indiana* State Bar Association to be appointed by the Indiana State Bar Association. These three (3) members of the *Indiana State* Medical Association shall function as the medical representatives provided for in the Joint Inter-Professional Code of the *Indiana* State Medical Association and the *Indiana* State Bar Association to carry out the purposes of that code. Its duties shall be as stated in that Code in the form in effect from time to time as approved by the Association, and in all other medico-legal matters.

7.0805 Negotiations Committee: The Negotiations Committee shall consist of five (5) physician members appointed for terms of four (4) years each. The initial nomination shall be staggered to insure continuity. Two (2) members shall be appointed to four (4) year terms. One (1) member shall be appointed ~~for~~ *to* a three (3) year term and one (1) member shall be appointed ~~for~~ *to* a two (2) year term and one (1) member shall be appointed ~~for~~ *to* a one (1) year term. The purpose of the Negotiations Committee is to become involved in proposals which affect the practice of medicine that include, but not limited to, negotiating with third parties and various ~~other~~ government agencies at specific direction from the Board of Trustees.

7.0806 The Commission on Constitution and Bylaws: The Commission on Constitution and Bylaws shall keep in contact with the developments and changes in procedures in carrying on the work of this Association; shall suggest revisions necessary to keep the Constitution and Bylaws always in accord with the practices and procedures best adapted to the functioning of the Association; and shall keep the practices and procedures of the Association consistent with the provisions from time to time contained in the Constitution and Bylaws—to the end that all members of the profession, by reference to the Constitution and Bylaws, may be able to obtain accurate information regarding procedure and practice within the Association, and that hampering of such procedure and practice by obsolete provisions in the Constitution and Bylaws may be avoided. *Amendments which are passed by the majority of the House become effective immediately and shall be submitted to the Commission on Constitution and Bylaws for implementation.*

7.0807 The Commission on Convention Arrangements: The Commission on Convention Arrangements, with the advice and assistance of the Executive Director, shall provide suitable accommodations for meetings of the Association, including the House of Delegates, Board, and of their respective committees, the scientific and technical exhibits, and in conjunction with the Executive Director, shall have general charge of all the arrangements. Its Chairman shall report an outline of the arrangements to the Executive Director

of the Association for publication in THE JOURNAL and in the official program, and shall make additional announcements during the session as occasion may require. The arrangements and the character of any and all technical exhibits must meet with the approval of the Executive Committee of the Association. It shall, with the approval of the Executive Committee, prepare a program for scientific work for the Annual Convention in which shall be included the respective programs for section meetings which shall be prepared through cooperation with the officers of the various sections, and it shall, with the approval of the Executive Committee, arrange for scientific exhibits as a part of the Annual Convention.

The general, scientific and sectional programs, and the financial arrangements to provide for them must be approved by the Executive Committee before being officially announced.

7.0808 The Commission on Legislation: The Commission on Legislation shall study all legislation, both state and national, and all local legislative trends and movements, as to their effect upon the practice of medicine and the protection of the public health; shall keep the profession informed at all times concerning the matters within its area of responsibility; shall conduct investigations of legislative proposals; and shall maintain liaison with members of the State Legislature and the United States Congress, and with the legislative activities of the American Medical Association. It shall strive to implement and make effective the legislative proposals adopted by the Association.

7.0809 The Commission on Medical Education: The Commission on Medical Education shall maintain liaison with, and try to be of assistance to, medical schools and the licensing board, and shall keep in contact with, and endeavor to assist in improving undergraduate education, postgraduate education, intern training, resident training, preceptor instruction, and public school health education.

7.0810 The Commission on Medical Services: The Commission on Medical Services shall concern itself and assume special responsibility in obtaining information and giving counsel and advice to the Association with respect to all matters in which medical service comes into contact with any existing or proposed functions of government, including civil defense, rehabilitation of persons handicapped by abnormality or disease, medical service in welfare departments, maternal and child health programs sponsored through governmental agencies, medical care of military personnel, plans and programs for medical care of veterans, medical care for dependents of those in uniformed services of the government, plans and programs of the government for medical care now existing or which may hereafter be adopted by any special group, government programs for elimination of venereal disease and other communicable diseases, and all programs and plans for medical care to be provided through municipal, state or federal governments.

7.0811 The Commission on Physician Impairment: The Commission on Physician Impairment shall develop a program to recognize, treat and rehabilitate physicians who are impaired by neuropsychiatric illness, physical infirmities or alcohol and other substance dependence. The Commission will encourage informal and formal referral of all impaired physicians through county medical society screening committees.

7.0812 The Commission on Public Relations: The Commission on Public Relations shall collect and organize for dissemination to the public all matters of public interest within the field of medicine, including the activities of other commissions in which the public interest would be involved, and including also the achievements in the advancement of medicine which would be of interest to the public; shall disseminate all such information through the use of whatever media the commission may find adaptable to that purpose so that such information may be brought to the public in the most effective and convincing manner; and shall develop and maintain the relations of the medical profession with the public in such a way as to give the lay public a better knowledge and understanding of the aims, objectives and value of the profession. ~~to the public~~

7.09 Ex-Officio Members: The President, President-Elect, Executive Director, Speaker, Vice-Speaker of the House and the Chairman of the Board of Trustees shall be ex-officio members of all the foregoing committees and commissions without voting rights where their inclusion on the committee or commission is not otherwise provided for in these Bylaws.

7.10 *Travel Reimbursement: ISMA will reimburse commission and committee members at the rate currently allowed by the IRS for mileage driven to attend ISMA commission and committee meetings. This does not include any expense of attending same during the annual convention.*

8.00 RECIPROCITY OF MEMBERSHIP WITH OTHER STATE SOCIETIES

In order to broaden professional fellowship, this Association is ready to arrange with other State Medical Associations for an interchange of certificates of membership so that members moving from one state to another may avoid the formality of re-election.

9.00 REFERENDUM

9.01 General *and Special* Meetings: *Providing a quorum is present, (150 members) as per 3.0403 of these Bylaws,* a general *or special* meeting of the Association may, by a two-thirds vote of the members present, order a general referendum on any question pending before the House of Delegates, and when so ordered the House of Delegates shall submit such question to the members of the Association, who may by mail or in person, and if the members voting shall comprise a majority of all members of the Association, a majority vote shall determine the questions and be binding on the House of Delegates.

9.02 General Referendum: The House of Delegates may, by a two-thirds vote of its own members, submit any question before it to a general referendum, as provided in the preceding paragraph, and the result shall be binding on the House of Delegates.

10.00 THE SEAL

The Association shall have a common Seal, with power to break, change or renew that same at pleasure.

11.00 COUNTY ~~AND DISTRICT SOCIETIES—COUNTY SOCIETIES~~ SOCIETIES

11.01 Charters: All county societies now in affiliation with this Association or those which may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and Bylaws, *or those of the American Medical Association,* shall on application receive a charter from and become a component part of this Association. The acceptance or retention of this charter shall be regarded as a pledge on the part of said component society to conduct itself in harmony with the letter and spirit of this Constitution and Bylaws and other rules and resolutions of this Association. Charters shall be issued only upon approval of the Board and shall be signed by the President and Executive Director of this Association. The Board shall have the authority to revoke the charter of any component society whose actions are in conflict with the letter and spirit of this Constitution and Bylaws *or those of the AMA.*

11.0101 Conflicting Societies: Only one component medical society shall be chartered in any county. Where more than one county society exists, friendly overtures and concessions shall be made, with the aid of the Trustee for the district if necessary, and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the Board, which shall decide what action shall be taken.

11.02 Membership Qualifications: Each county society shall be judge of the qualifications of its own members, but, as such societies are the only portals to this Association ~~and to the American Medical Association,~~ every reputable and legally registered physician who holds a degree of Doctor of Medicine, a degree of Bachelor of Medicine or who holds a valid, unrestricted license to practice medicine and surgery ~~and who does not practice or claim to practice, nor lend support to, any exclusive system of medicine,~~ shall be eligible for membership. Provided, however, that each county society may deny membership in such society for infraction or violation of any law relating to the practice of medicine or of the Constitution and Bylaws of such society, the Constitution and Bylaws of the Indiana State Medical Association, *the Constitution and Bylaws of the American Medical Association,* or for a violation of the Principles of Medical Ethics of the Indiana State Medical Association; and may, after due notice and hearing, censor, suspend or expel any member for any such infraction. Before a charter is issued to any county society, full and ample notice and opportunity shall be given to every physician in the county to become a member.

11.03 Right of Appeal: Physicians who may feel aggrieved by the action of the society of their county in refusing them membership, or in suspending or expelling them, shall have the right to appeal to the Board, and its decision shall be final.

In hearing appeals the Board may admit oral or written evidence as in its judgment will best and most fairly present the facts, but in case of every appeal, both as a board and as individual Trustees in district and county work, efforts at conciliation and compromise shall precede all such hearings.

11.04 Membership Transfer: When members in good standing in a component society move to another county in this state, their names shall be transferred without cost to the roster of the county society into whose jurisdiction they move, provided the transfer is approved by majority vote of the membership of said society to which the transfer is proposed. Physicians who have the major part of their practice in a county other than the county in which they

reside may hold membership in the county society of their residence or in the county society of the county in which they have the major part of their practice. However, physicians shall not hold active membership in more than one county society at the same time.

11.05 Direction of Profession: Each component society shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral and professional status of every physician in the county; and systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it embraces every qualified and honorable physician in the county.

11.06 Selection of Delegates: At the annual business meeting for election of officers, in advance of the Annual Convention of this Association, each county society shall elect Delegates and Alternates to represent it in the House of Delegates of this Association, and the Secretary of the society shall send a list of such Delegates and Alternates to the Executive Director of this Association annually on or before February 1.

11.07 Secretarial Duties: The Secretary of each component society shall keep a roster of all its members and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary. In keeping such a roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making the required annual report the Secretary shall be certain to account for every physician who has lived in the county during the year.

The Secretary of each component society shall prepare and send to the Trustee of the Secretary's district a quarterly report briefly stating the activities of the Secretary's county society including meetings, programs, changes in officers and personnel or membership. A copy of this quarterly report to the Trustee shall also be sent to the Executive Director of the *Indiana* State *Medical* Association. The *Indiana* State *Medical* Association shall supply each County Secretary a form for these reports.

11.08 Fiscal Year and Dues: The fiscal year of the Association shall be from October 1 to September 30 of the succeeding year. The dues shall be collected by the calendar year and payable in advance. Unless collected by the Indiana State Medical Association, the Secretary of each component society shall forward the dues for the society to the Executive Director of this Association and shall furnish the *Indiana* State *Medical* Association headquarters with a roster of officers, members, and a listing of non-affiliated physicians of the county, on or before January 1 of each year, and shall promptly report thereafter the names of any new members elected to membership in the society, and promptly forward to the Executive Director of this Association the dues for such members. The dues and the rights and benefits of all members shall be as provided in 1.00 et seq. of the Bylaws.

Provided, however, that physicians elected to their first membership in this Association during the first six months of any year shall pay the regular annual dues for that year; and those elected to their first membership after July 1 of any one year shall pay fifty percent of the annual dues for the remainder of that year. Interns and residents shall pay annual dues during their term of service in the hospital at a reduced rate established by the Board of Trustees. In the event the county society relieves a member from the payment of dues on account of financial hardship, the Secretary of the county medical society shall recommend in writing to the ~~Trustee of the district~~ *Executive Director of ISMA* the relief from *Indiana* State *Medical* Association dues of said member of the society, showing why such recommendation should be granted. ~~The Trustee in turn shall present the recommendation to the Board, which shall have the power to relieve a member of dues.~~ *The Executive Director shall have the power to relieve said member of dues.*

11.09 Failure to Pay Dues: Any county society which fails to pay dues or make the report required by ~~February 1~~ *January 15th* of each year shall be ~~held suspended~~. *delinquent. Any county society which fails to pay dues or make the report required by April 30 shall be held suspended,* and none of its members or delegates shall be permitted to receive any of the publications of the Association or participate in any of the business or proceedings of the Association or of the House of Delegates until such requirements have been met.

11.10 Secretary Direction: Each county society shall be held responsible for the faithfulness in the performance of duty on the part of its Secretary in making reports and remitting dues to the Association.

11.11 Constitution and Bylaws: Each component society shall have its own Constitution and Bylaws, which shall not be in conflict with the Constitution and Bylaws either of this Association or of the American Medical Association. An up-to-date copy thereof shall be filed with the Executive Director of the Indiana State Medical Association not later than

May 1 of each calendar year, or where such copy is so on file and no change has been made, then it shall be sufficient to file a certificate to that effect with ~~said~~ *the* Executive Director.

12.00 TRUSTEE DISTRICT MEDICAL SOCIETIES

12.01 Composition: A Trustee District Medical Society, hereinafter called the district society, shall be a society whose members consist of the members of the county medical societies in the counties which constitute the Trustee district.

12.02 Number of Districts: The state shall be divided into thirteen (13) Trustee districts with the boundary lines and number of each district to be as follows:
First District—Posey, Vanderburgh, Warrick, Spencer, Dubois, Perry, Pike and Gibson Counties
Second District—Knox, Daviess, Martin, Monroe, Owen, Greene and Sullivan Counties.
Third District—Crawford, Harrison, Floyd, Clark, Scott, Washington, Orange and Lawrence Counties.
Fourth District—Jackson, Jennings, Jefferson, Switzerland, Ohio, Dearborn, Ripley, Decatur, Bartholomew and Brown Counties.
Fifth District—Clay, Vigo, Vermillion, Parke and Putnam Counties.
Sixth District—Shelby, Rush, Fayette, Franklin, Union, Wayne, Henry and Hancock Counties.
Seventh District—Morgan, Johnson, Marion and Hendricks Counties.
Eighth District—Madison, Delaware, Randolph, Jay and Blackford Counties.
Ninth District—Fountain, Montgomery, Boone, Hamilton, Tipton, Clinton, Tippecanoe, Warren, Benton, White, Newton and Jasper Counties.
Tenth District—Porter and Lake Counties.
Eleventh District—Carroll, Howard, Grant, Wabash, Miami, and Cass Counties.
Twelfth District—Wells, Adams, Whitley, Allen, Noble, Huntington, DeKalb, LaGrange and Steuben Counties.
Thirteenth District—Pulaski, Fulton, Kosciusko, Marshall, Starke, LaPorte, St. Joseph and Elkhart Counties.

12.03 Constitution and Bylaws: Each district society shall adopt a Constitution and Bylaws, which shall not conflict with the Constitution and Bylaws of the *Indiana* State *Medical* Association, *or those of the American Medical Association,* and only one district society shall exist within any one Trustee district. The authorized district society in each Trustee district shall receive a charter from the *Indiana* State *Medical* Association, and the Secretary of the district society shall have custody of the charter.

12.04 Officers: Each district society shall organize by electing a President, a Secretary and a Treasurer and Trustee(s) and Alternate Trustee(s) as the current Trustee(s) term and Alternate Trustee(s) term for the district expires, and such others as may be provided for in its Constitution and Bylaws. The office of Secretary and Treasurer may be held by the same physician. The Trustee(s) shall continue to have the same duties and terms as are set forth in the Constitution and Bylaws of this Association.

12.05 Trustee Allocation: Each district society shall have one (1) Trustee and one (1) Alternate Trustee for each six hundred (600) active members or major fraction thereof but in any event each district shall have one (1) Trustee and one (1) Alternate Trustee. The term of each trusteeship newly created by the numerical growth of a district shall begin at the organization meeting of the Board immediately following the adjournment of the ~~second meeting~~ *final session* of the House of Delegates at the next ~~annual meeting~~ *Annual Convention,* in accordance with 5.06.

12.06 Dues: The dues of the district society, in an amount fixed by the district society to meet the society needs, shall be collected by the secretaries of the component county societies, or by the Indiana State Medical Association and delivered to the Treasurer of the district society. The Secretary of each district society shall report to the office of the Indiana State Medical Association the names and addresses of the members of the district society, together with a copy of the minutes of each meeting of the district society.

12.07 Meetings: Each district society shall meet at least once each year at a time and place to be fixed by the district society. On or before January 1 of each year each district society shall notify the headquarters of the *Indiana* State *Medical* Association of the time and place of the annual district meeting for that year; but if no such notification has been received in the headquarters on or before the January meeting of the Board, the Trustee shall fix the time and place of the district meeting, and notice of such meeting shall be sent to the members of the county medical societies in such district.

12.08 Notification to Headquarters: Whenever a district society is to elect a Trustee and/or Alternate, the headquarters office of the *Indiana* State *Medical* Association shall so notify the individual members of such district society not later than six (6) weeks in advance of said election date. The district society shall send to the headquarters office of the *Indiana* State *Medical* Association a copy of its program showing the time and place of its meetings, early enough that the headquarters office may notify all members within the district of the meeting at least

thirty (30) days prior to the date thereof.

12.09 Recommendation of Nominees to the Board of Directors of Mutual Medical Insurance, Inc.: Each district medical society may recommend nominees from its membership (a physician subscriber to Mutual Medical Insurance, Inc.) to serve on the Board of Directors of MMI. The physicians recommended will be submitted for nomination at the annual meeting of Mutual Medical Insurance, Inc. The ISMA Board of Trustees may recommend additional nominees.

13.00 MEDICAL DEFENSE—MEDICAL DEFENSE ADMINISTRATION, AUTHORITY AND PROCEDURES

13.01 Administration: The administration of medical defense of this Association shall be intrusted to the Executive Committee, which shall constitute the Medical Defense Committee of the Association.

13.02 Authority: This committee shall have full authority governing all matters pertaining to this ~~Chapter~~ *Section.* In order to insure a fair and full presentation of defense for member physicians sued or against whom claim is made, the committee shall have the power to employ and pay an attorney of their choice as a consultant to the committee, and such other expenses as the committee may approve as necessary. It is expected that the committee's consultant attorney will provide necessary communication with the member-physician's personal attorney.

13.03 Annual Report: The Medical Defense Committee shall make an annual report to the House of Delegates of the cases in which it has been of service to members and furnish an account of the money expended, such report to be published in THE JOURNAL of the Indiana State Medical Association at the time and in the manner that reports of other committees of the Association are published.

13.04 Liability: The Association shall not be liable for any damage awarded, but shall be liable only for such expenses for the legal consultation for its members as may be incurred in accordance with the terms of these Bylaws.

13.05 Eligibility: The Association shall not undertake the consultation of a member in any case in which the member who applies for medical defense by the Association has failed to pay annual dues for the year in which services were rendered which are the basis of the suit; and medical defense by the Association shall not be available in any suit based on services rendered during any period of ~~delinquency~~ *suspension.* ~~in the payment of dues. Dues are payable on January 1, and become delinquent on February 1 of each year. The membership card of this Association, duly signed and dated by the Executive Director, shall be considered the only bona fide evidence of payment of dues or membership in this Association.~~ The Indiana State Medical Association shall in no case provide medical defense consultation against any action for alleged malpractice against any physician unless such physician was a member of this Association in good standing at the time the services, which are the basis of the suit, were rendered.

13.06 Filing for Defense: A member seeking the services of the Medical Defense Committee in connection with litigation brought or threatened must send to the Executive Director of the Association for an application blank. After completing the data concerning the case, the member shall submit to a local committee of the county medical society—to be composed of the President, Secretary and one other member in good standing who may be nominated by the defendant—a full statement of the question at issue, including the diagnosis and treatment of the case and the names of physicians, nurses and other persons having knowledge of the same, who may be summoned as witnesses.

13.07 County Society Committee: The committee of the county medical society shall immediately, after an investigation of all the circumstances and facts, transmit its report, with recommendations, to the Medical Defense Committee of this Association.

13.08 Appeal: In the event that the county committee shall fail to recommend the case as one worthy of the recognition of this Association, a direct appeal may be made to the Medical Defense Committee of this Association, whose decision shall be final.

13.09 Deceased Member: Suits brought against the estate of a deceased member shall be defended as if that member were alive; provided that such member was in good standing in the Association at the time of the death and that services for which indemnity is asked were rendered while the deceased was a member in good standing.

13.10 Locality Restrictions: Medical defense shall not be available to members living outside of the State of Indiana at the time services were rendered for which indemnity is claimed.

13.11 Adoption of Rules: The Medical Defense Committee shall have *the* power to adopt such other rules, not in conflict with the foregoing, as in its judgment may seem necessary.

13.12 Terms of Defense: Medical Defense as provided for by this Association shall be available to a member under the terms stated in these Bylaws only in the defense of civil action for alleged malpractice, and

shall not be available if such alleged malpractice occurred when the member was under the influence of any intoxicant or narcotic while rendering the service in question.

14.00 MISCELLANEOUS—DIVISION OF FEES

This Association does not countenance or tolerate fee-splitting, division of fees, or commission paying directly or indirectly, and any member found guilty shall be expelled from membership.

15.00 PARLIAMENTARY PROCEDURE

The deliberations of this Association shall be governed by parliamentary usage as prescribed in the current edition of Sturgis Standard Code of Parliamentary Procedure, when not in conflict with this Constitution and Bylaws.

16.00 AMENDMENTS

16.01 These Bylaws may be amended *by resolution, as in 3.020701b, which shall be treated as any other proposed amendment,* at any meeting *of the House of Delegates* by a majority vote of all the Delegates present. ~~at that meeting.~~ Amendments to the Bylaws must be submitted to the Association forty-five (45) days in advance of the meeting. These amendments must be presented to the Commission on Constitution and Bylaws prior to the meeting and are eligible for passage after lying on the table for one day.

16.02 Other: Any other Bylaw amendment presented to the House of Delegates will not be eligible for consideration by the House of Delegates ~~until the next meeting~~ unless two-thirds majority of the ~~FIRST~~ *first session of the House of Delegates* votes to consider the amendment as presented.

16.03 Amendment Implementation: *Amendments which are* ~~If~~ passed by the majority of the House become effective immediately and shall be submitted to the Commission on Constitution and Bylaws for ~~its consideration.~~ *implementation.*

17.00 MEDICAL ETHICS

The Principles of Medical Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

AMERICAN MEDICAL ASSOCIATION Principles of MEDICAL ETHICS

Preamble:

The medical profession has long subscribed to a body of ethical statements developed primarily for the benefit of the patient. As a member of this profession, a physician must recognize responsibility not only to patients, but also to society, to other health professionals, and to self. The following Principles adopted by the American Medical Association are not laws, but standards of conduct which define the essentials of honorable behavior for the physician.

I. A physician shall be dedicated to providing competent medical service with compassion and respect for human dignity.

II. A physician shall deal honestly with patients and colleagues, and strive to expose those physicians deficient in character or competence, or who engage in fraud or deception.

III. A physician shall respect the law and also recognize a responsibility to seek changes in those requirements which are contrary to the best interests of the patient.

IV. A physician shall respect the rights of patients, of colleagues, and of other health professionals, and shall safeguard patient confidences within the constraints of the law.

V. A physician shall continue to study, apply and advance scientific knowledge, make relevant information available to patients, colleagues, and the public, obtain consultation, and use the talents of other health professionals when indicated.

VI. A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical services.

VII. A physician shall recognize a responsibility to participate in activities contributing to an improved community.

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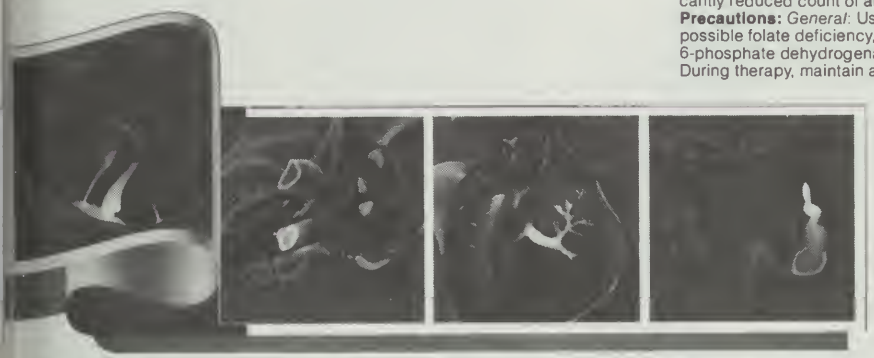
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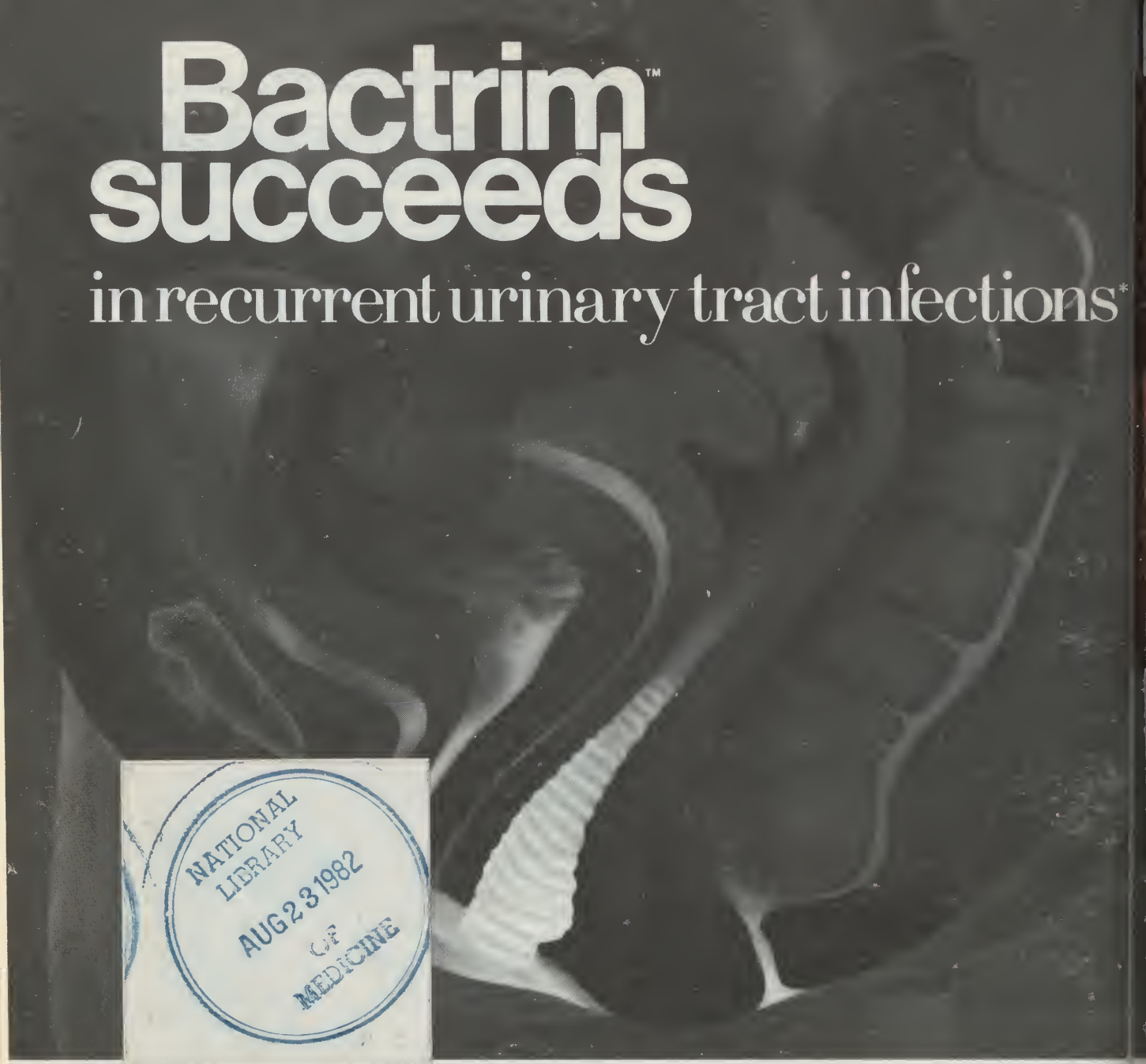
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1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

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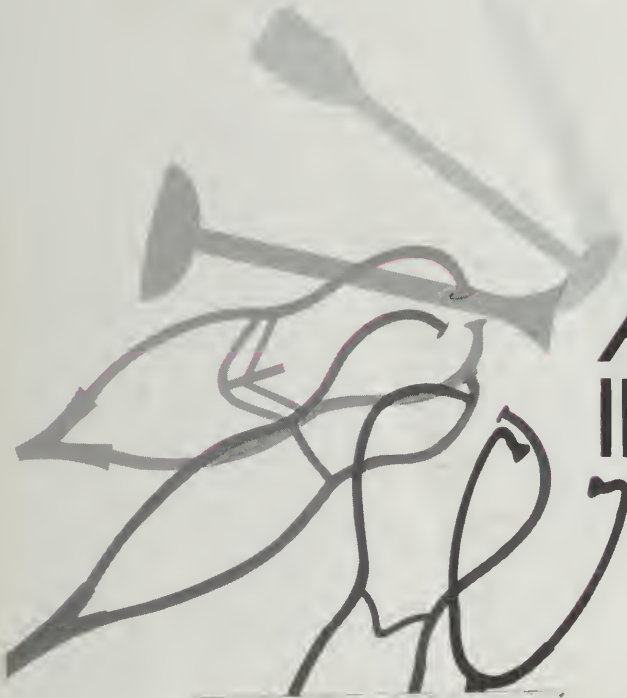
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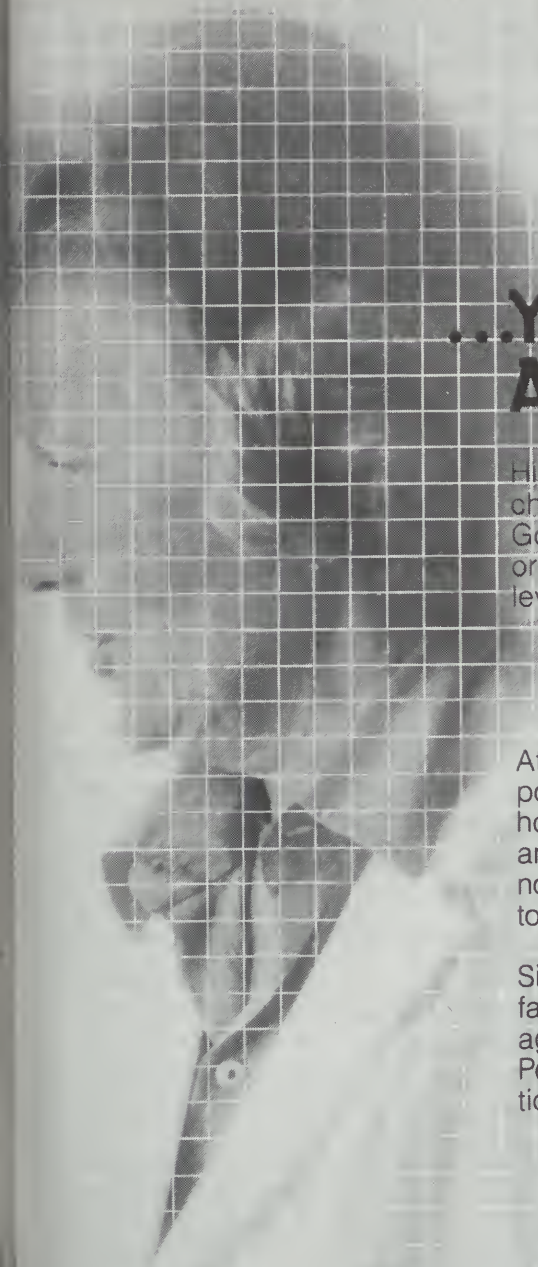
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133rd Annual Convention
Indiana State Medical Association
October 15-18, 1982 / Holiday Inn North
Indianapolis, Indiana

THE PATIENT THINKS HE HAS HEART TROUBLE...





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diazepam/Roche

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Please see summary of product information on the following page.

VALIUM®(diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:
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Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation. slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
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Master Medical Corporation has developed a new I.V. Master Flow™ Controller. It is unsurpassed for safety. It cannot slip or run away. Stops under and over infusions. Desired flow rate can be dialed quickly and accurately with the easy to read c.c. per hour dial markings. When set, the rate holds.

Claforan (cefatoxime sodium), the first of the third generation of cephalosporins and one of the newest antibiotics, was discussed extensively recently at a symposium at Beth Israel Medical Center, New York City, as an ideal agent to employ for protection against infection occurring in operations on patients such as those undergoing transplants or those who, for other reasons, are especially susceptible to infection due to age or illness.

Anesthesia Respiratory Technology (ARTEC) is introducing the ARTEC filter, which is a high efficiency disposable device for the removal of bacteria and viruses from respiratory and anesthesia breathing equipment. The filter is naturally hydrophobic and permits the passage of moisture without significant increase in flow resistance.

The Argyle Division of Sherwood Medical has a new Tartan® Cuffed All Silicone Tracheostomy Tube. The obturator permits air passage during intubation. The cuff is soft, low pressure and high volume to avoid mucosal trauma. Silicone produces a non-wetting slippery surface that tends to reduce secretion accumulation. A Tartan® Uncuffed All Silicone Pediatric Tracheostomy Tube is also available.

The Jewish Hospital of Louisville announces a hospital-based medical helicopter service with a 130-mile radius. Transportation of critically injured persons to a hospital of choice or transfer from one hospital to another is possible. The copter is staffed by registered nurses, paramedics and pilots.

Instromedix, marketer of The Compressar, a mechanical clamp designed years ago to replace the finger pressure method of controlling bleeding, has received renewed attention recently as a handy and efficient controller of bleeding following vessel puncture for catheter introduction for arteriography, and similar procedures. It is especially beneficial to cardiologists who are using the larger catheters for angioplasty and streptokinase procedures.

Patell-Ease Corporation is marketing the "Levine Strap," a new infrapatellar strap designed by an orthopedist, to relieve and control pain from chondromalacia. When properly worn, the strap does more than relieve pain; it affords complete mobility of action. It also is effective in relief of symptoms of patello-femoral arthritis and Osgood-Schlatter disease.

EM Science introduces the Harleco Diagnostics blood chemistry analyzer system. The new VersaChem™ analyzer features a unique, single-component shaker/incubator that simultaneously mixes reagent and serum while it is warming to an electronically controlled temperature level. The analyzer can accommodate a total of 24 endpoint and kinetic chemistries in programmable memory.

CONTINUED ON PAGE 617

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

The JOURNAL of the INDIANA STATE MEDICAL ASSOCIATION

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SEPTEMBER 1982
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Sandoz Medical Journalism Award—1976, 1979

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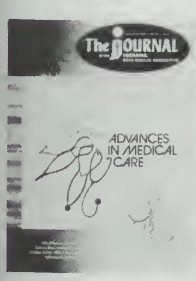
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ABOUT THE COVER

This year's ISMA annual convention logo, designed by Linda Kamer, depicts the theme "Advances in Medical Care," by showing the progression of stethoscopes over the years. The stethoscope was originally devised by a French physician, René T. H. Laënnec (1781-1826). For a preview of the convention, see the special section beginning on Page 651.

—COVER BY FRED KINGHORN

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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

THE THEME OF this year's ISMA Annual Convention is "Advances in Medical Care," the logo of which provides the cover illustration for this issue of THE JOURNAL. The logo shows, in outline form, the development of the stethoscope, an instrument uniquely symbolic of advances in medical care.

Dr. Rene Laennec (1781-1826) of Paris, France, was 35 years old when he began fashioning tubes of paper (1816) to better hear the sounds within the chest, associated with the function of the heart and the lungs, and the changes in sound produced by disease. This occurred concurrently as the Territory of Indiana achieved statehood.

Laennec first published on the subject in 1819 (De l'auscultation mediate). His instrument by that time was a cylinder of cedar or ebony, 30 centimeters long, 3 centimeters in diameter, with a central canal 5 millimeters in diameter. The cylinder unscrewed or unplugged in the middle, so that it could be carried in the pocket.

The significant advance in physical diagnosis, effected by Laennec's instrument and technique, was immediately appreciated. By the 1830s two centers of study had developed in the United States—at Boston and at Philadelphia. Among others, this included Dr. Henry Ingersoll Bowditch, who published "The Young Stethoscopist," in 1846 (recently acquired by this Museum). By this date, Laennec's stethoscope was outmoded, the general complaint being that it was too heavy. Smaller, lighter-weight instruments fashioned of wood or metal, some with ivory parts, appeared in a variety of designs. Dr. Bowditch cited "lightness, smallness, and a good-sized ear piece" as the three essentials of a good instrument. As with Laennec, Bowditch considered the stethoscope essential for the study of heart sounds, but for pulmonary disease ". . . in the majority of instances the ear (alone) is sufficient."

Until the 1850s the stethoscope was a monaural device. The illustration shown on this page is that of a flexible monaural instrument from the 1840s, fashioned by Dr. Pennock of Philadelphia. Dr. Bowditch stated that: "It is an elegant instrument . . . but it requires the use of both hands." Dr. Bowditch wanted one hand free, so as to be able to feel the pulse.



The Stethoscope: Symbolic of Advances in Medical Care

The binaural stethoscope first appeared in the 1850s, and has been undergoing continuous modification since.

The Museum has a small collection of these old stethoscopes. It was from this collection that Indianapolis artist Linda Kamer made her original sketches for the logo.

Thus far, the Museum has been very fortunate in acquiring not only stethoscopes, but a variety of instruments, both medical and surgical. The volume and variety of these instruments have long since made evident the Museum's need for a professional medical historian and curator.

Mention was made in the January 1982 page of NOTES of the Priscilla Brown bequest to the Museum. The interest from this now provides a modest income. In conjunction with the Indiana Historical Society (which funds half the cost), the Museum now has a full-time curator and medical historian. The role has been filled by Katherine Mandusic McDonell, who holds a B.A. degree (Phi Beta Kappa) from Ohio Wesleyan University, and an M.A. (in history and museum studies) from Case Western Reserve University. While in Cleveland, she worked at the Howard Dittrich Museum of Medical History, and for the Western Reserve Historical Society. Recently, she has served as research historian for the Conner Prairie Pioneer Settlement. Achieving the goal of funding and filling the position of curator and medical historian represents the Museum's "advance in medicine" for the year.

Ms. McDonell will be present at the Medical History Committee session at the ISMA Annual Convention. Interested readers are cordially invited to attend.

Meeting Scheduled

A meeting of the ISMA Medical History Committee will be conducted at 10 a.m., Saturday, Oct. 16, at the Holiday Inn-North, Indianapolis, during the Annual Convention. The room number will be available at the Registration Desk. Interested physicians are invited to attend.

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EDITORIALS

The Expense of Drugs

Drugs, like most things, seem to be too expensive. However, on a relative scale, ethical drugs are the best bargain around. Back in 1967, the price index of everything started out at 100; today, while the index for all commodities is 295.6, ethical pharmaceuticals are down there at 190.2.

Drug Substitution Study Results

"With just a bit of exaggeration, it seems fair to conclude that consumers generally do not request substitution, prescribers generally do not prohibit substitution and pharmacists generally do not substitute," according to Theodore Goldberg, Ph.D., chief investigator in the Wayne State University study of drug substitution.

The study began in 1974, just before the first state enacted a substitution law. Now, the study opines that the issue of substituting a generic drug for its brand-name forerunner "seemed important in principle" but "apathy has prevailed."

Overall the study shows substitution taking place 8.6% of the time in Vermont, 7.4% in Michigan, 5.1% in Wisconsin and 2.6% in Rhode Island. Vermont and Rhode Island have "mandatory laws," Michigan and Wisconsin have "permissive laws."

Where substitution does take place the savings have been like $1.33 in Michigan, $1.14 in Vermont, $0.96 in Rhode Island and $0.66 in Wisconsin. Goldberg concludes that "the expected and anticipated savings . . . simply have not materialized."

A considerable number of prescriptions are written generically. However, notwithstanding, Goldberg said, "Most drug product selection to date seems to occur among well known brand-name products. That is, pharmacists substitute one well known brand for another." This may be a consequence of a 25% savings which accrues to the pharmacist when he does not need to stock both brand-name products and he prefers to pass the saving along to the customer, he said.

It is encouraging to learn that the substitution ploy has not resulted in the dispensing of any large number of inferior drug products, but has operated in such a way as to supply reliable drugs with some legitimate savings to patients.

The study also suggests that, as one official in Indiana remarked, "Maybe the fact that Indiana is the only state without a substitution law indicates that that is the correct way to go."

The Search for 'Orphan Drugs'

The process of searching for and producing "orphan drugs" for treatment of rare diseases has been initiated by the Pharmaceutical Manufacturers Association. The PMA's Commission on Drugs for Rare Diseases has completed its first evaluation of an orphan drug, finding the substance L-5-hydroxytryptophane "valuable" for treatment of post-hypoxic myoclonus.

The commission has invited pharmaceutical manufacturers, health agencies and research institutions to sponsor research for further development of the drug.

This first step by the PMA commission presumably will be followed by the clinical research necessary to validate the drug for use. And, presumably, the commission's sponsorship invitations will be the first of a long series of invitations to volunteer in the expanded search for pharmaceutical products effective against many other rare diseases.

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The Federal Debt Monster

The Voice of Business



JOHN W. WALLS
President
Indiana Chamber of Commerce

EVERY PRESIDENT is required by the Employment Act of 1946 to produce an **Economic Report** to be submitted to the Congress and the nation early each calendar year.

Presidents, of course, do not write their own economic reports, which are usually 300 to 400 pages long. Rather, they have a Council of Economic Advisors with staff members to produce such mundane things for them.

Ronald Reagan's first report, covering 1982, was issued several months ago. Even if it isn't the President's own handiwork, it makes fascinating reading.

In particular, a little table buried back on page 107 is worthy of attention. It has the formidable title of "Ratio of Federal Government's Total Net Liabilities to Household Wealth," and here's what it looks like:

Ratio of Federal Govt's Total Net Liabilities to Household Wealth

Year		Year		Year	
1950	0.166	1970	0.241	1974	0.326
1955	0.231	1971	0.267	1975	0.344
1960	0.234	1972	0.265	1976	0.342
1965	0.201	1973	0.304	1977	0.350

This is the statistician's ponderous way of relating all of the pledges the government had made on our collective behalf to pay money to millions of people in various ways ("federal government's total net liabilities") to the worth of everything we own ("household wealth").

Since 1970 this ratio has been exploding. In 1971 it was 0.267 — more than one-fourth of our private net worth. By 1977 the federal government's promises to pay put the ratio at 0.350, which is 35% of our household wealth.

Interestingly, the main reason for the surge in pledged assets does not lie in the outright debt issued by the government (the accumulation of budget deficits). Rather, the major cause is the growth in unfunded liabilities of government retirement programs, including Social Security. In constant (inflation-adjusted) dollars, these unfunded liabilities more than doubled in the 1970-1977 period to a sum exceeding $4 trillion. That's *trillion.*

This explosive growth already causes great alarm among those who grasp the frightening implications of this trend.

The interesting question is what would happen if we allow the ratio to rise from 0.350 to 1. A little arithmetic shows this could occur by the year 1998 if present trends should continue.

A ratio of 1 would mean that the sum total of what the government promises to pay in the future is equal to the net value of everything we—you and I—own. The government pledges would include the national debt, the principal and interest on government bonds, and all government-backed retirement systems, including Social Security, Civil Service and military pensions.

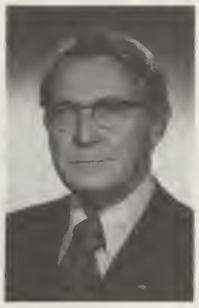
What would this mean? It would mean that it could take everything we've got to pay off these debts. Or, the government could confiscate 100% of our earnings and pay it to two groups—those receiving entitlement benefits and those owning government bonds.

This might be a cushy deal if you happened to own a lot of government bonds. But those of us who don't, and are too young to retire, would have some eating problems. It also raises the question of why we should continue to work under those circumstances.

And some people still think the federal monster isn't out of control!

Regarding Nursing Homes

Guest Editorial



HUGH K. THATCHER, JR., M.D.
Indianapolis

RECENTLY, Dr. Ronald Blankenbaker, state health commissioner, wrote an article in THE JOURNAL to explain the decision to require both recent chest x-rays and intradermal tuberculin testing on all admissions to nursing homes in the state.

This was prompted by reports of the breakdown of old healed tuberculosis because of debility and/or age with resultant cross infection of other patients and nursing home employees. Prior to Dr. Blankenbaker's article, and also prior to the December 1981 effective date of the new regulation, the matter was discussed with both Dr. Blankenbaker and Dr. Russell Henry, tuberculosis consultant to the State Board of Health.

Their explanations were succinct and displayed their concern for the inhabitants of nursing homes and especially for the older residents. The time-consuming element of the two tests was relieved somewhat by allowing the skin test to be read after admission.

Perhaps the pressure by third-party payers to lessen the expense, and therefore ease the demand for routine chest x-rays for hospital admissions has thrown more of a burden on the physician when it comes time for him to declare the patient awaiting admission to a nursing home "free of communicable diseases including tuberculosis."

Another area of interest and importance prior to admission of patients to nursing homes is the culture of wounds. *Staphylococcus aureus* is still a threat to any close population and should be carefully screened. A strain of this organism has been found to be resistant to methicillin. Other organisms, once thought innocuous, are now becoming wound, respiratory and urological pathogens, and must be dealt with.

The administrators and medical directors of nursing homes have also been confronted with a problem since the new regulations were promulgated and put into effect in December 1981. This has to do with pedicure and podiatry. These regulations specifically state that the use of a podiatrist's services must be limited to three times a year, except in emergency, and upon the orders of an M.D. or D.O.

A podiatrist's services can only be rendered for diseased nails, or in event of occlusive peripheral vascular disease whether primary or secondary as in diabetes mellitus. This regulatory fiat has brought forth a rash of demands regarding physician orders on charts to enable the offer of care by the podiatrist.

Many nurses in nursing homes feel ill at ease caring for toe nails, especially in the elderly, where incipient vascular problems almost have to be a part of aging. The dangers of infection, even gangrene, support their position. Podiatrists have given loyal and supportive service to these patients for many years.

The matter of "Prior Approval" for extra visits has added an extra dimension and hurdle from a time standpoint in some cases. It is to be hoped that the administrators and medical directors, however, will be alert to these matters so that surveyors will not find discrepancies, even in routine orders. Citations regarding care of such cases should be avoided.

The author is chairman of the ISMA Section on Medical Directors and Staff Physicians of Nursing Facilities.

Tax Shelters: Suggested Guidelines

Business-Financial Advice for Physicians



RONALD R. DICKINSON
Noblesville, Ind.

DURING THE PAST few years, the Number 1 question that has been raised by our physician clients is, "How can you select a good investment tax shelter?" Another popular question is, "What is a good, secure tax shelter to invest in?" Since 1982 is quickly slipping away, we felt these questions should be reviewed at this time.

Before we give you answers to the questions above, let's review some important background information.

What Is a Tax Shelter?

Simply . . . . "A tax shelter is a vehicle by which a taxpayer may reduce his current tax liability."

This is a very general definition; however, it establishes the boundaries in which all tax shelters reside. The numbers of ways any person can reduce his tax liability, legally or illegally, is limited only by the human imagination. However, the wise and prudent course is to abide by the law and use the vehicles provided hereunder.

Some tax shelters are very simple, while others are complex. Some of the most widely used tax shelters are pension plans, profit sharing plans, HR-10 plans, and the widely publicized I.R.A. We plan to discuss these programs at a later date.

For this writing, we will give you some common sense guidelines to follow in selecting the more complex investment tax shelters such as real estate, energy, livestock breeding, equipment, leasing, movies, and so forth.

The term "tax shelter" is not a proper term. It is somewhat misleading in that it does not truly shelter one's income from taxation forever; it simply defers the taxes until a future date.

Guidelines to Follow

1. Read any offering, memorandum, or prospectus thoroughly. Ask questions on points that are not clear. Be cautious of language that appears to be deliberately ambiguous.

2. Know exactly what is being offered. For example: You may be offered a partnership participation in an oil and gas tax shelter. Under such an offering the partnership may be leasing a tract of land for exploration; leasing heavy equipment for drilling; providing transportation for crude oil; or own what a well produces. In each case here, the risks and benefits differ. So do the laws that apply.

3. Do not buy a one-shot deal. A one-time-only offering usually means there will be no future support or consultation concerning your investment. If a problem should arise, you are on your own.

4. Read the legal opinion. If an offering is presented without a legal opinion, ask for one. The opinion should not be more than 16 months old.

5. Do not sign any promissory document that does not explain what payments are to be made; designate such payments as principal or interest; give specific dates when payments are due; or state the exact amount of such payments. Know exactly what payments you are expected to make out-of-pocket and the percentage of payments that are to be made by earnings from the venture.

6. Be wary of outlandish claims. An offering that claims to provide an exceptionally large write-off in the first year and promises *no recapture* in future years is a fraud. A good offering will provide more than a write-off. It will make economic sense and provide for potential profits.

7. Consider the source of any offering. Obtain reliable references, or contact one of the principals involved. A reputable businessperson will be happy to discuss the program with you at length.

8. Gain some understanding of the industry involved. Read or discuss with someone knowledgeable to the field of endeavor. Try to get documented evidence.

9. Be cautious of off-shore ventures. The laws are quite different.

10. Always view a tax shelter as a business investment. It should be entered into on the premise that for your investment you will realize a return.

Benefits from Tax Shelters

1. Reduce one's current tax liability.

2. Allow for investment credits. In certain cases, investment credits are, in whole or part, not subject to recapture.

Mr. Dickinson is president of Simplified Systems, Inc., Noblesville. He also is state director of Physicians Planning Service, Indiana; state manager of the National Association of Professions; and an instructor for the Continuing Education of CPAs.

They also provide for significant tax savings.

3. Increase current cash flow. What is not presently paid in taxes allows for additional savings or investments.

4. Diversify one's portfolio. Tax savings can be put into other appreciable items.

5. Reduce one's current level of debt. A portion of one's tax savings could be applied to an outstanding loan.

6. Provide working capital. With increased cash flow one may upgrade his own personal business or profession.

7. Allow for participation in another industry. One may find it an interested sideline that can be educational and exciting.

6. Create monetary gains. Remember, tax benefits aside, well structured shelters, hopefully, will provide for exceptional profit participation.

It would be impossible to discuss all of the various kinds of shelters, their strong and weak points, their various structures, benefits and short comings. However, it is important to point out that every tax shelter provides its own particular benefits and has its own needs be they monetary, administrative or calendar. They are individual in what they can and cannot provide.

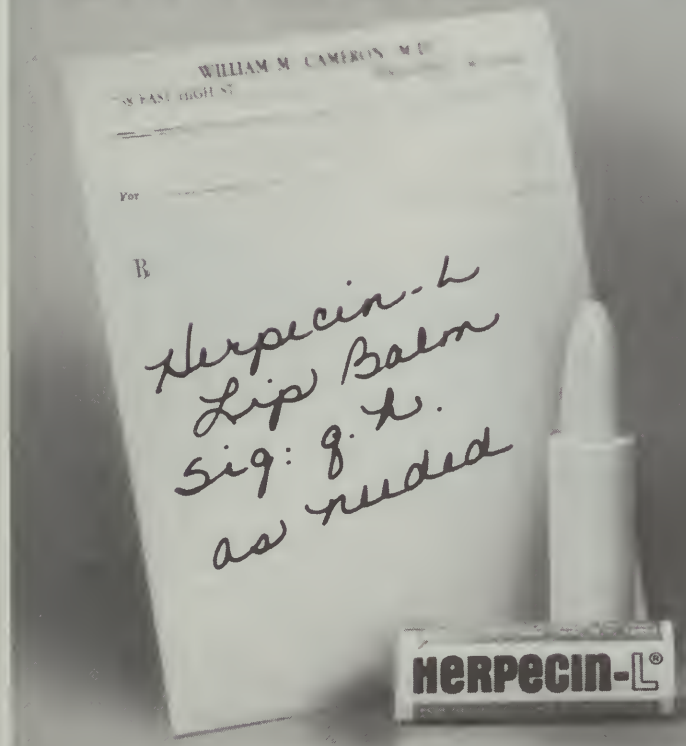
It is prudent to remember that no single factor distinguishes good investment shelters from bad or fraudulent ones.

Another point to remember: If the sheltered investment is registered with the S.E.C. it does not necessarily mean that it is a better investment or shelter. An S.E.C. registration simply means that the investment is being offered in compliance with the regs, set forth by their permission.

The Economic Recovery Act of 1981 gave sweeping changes to tax shelters. It has made it more difficult to create an abusive shelter as in the past. It has provided for greater tax savings and has built tax incentives into the law for the good of the economy. The flaws are explicit as to methods of depreciation, "at risk" limitations, loss deferrals, etc. A good tax shelter will fall within the boundaries set by the laws and rulings.

In summary, if investment tax shelters are to be a part of your overall financial planning for 1982 or later, now is the time to determine your objectives. Do not wait until the final quarter of the year to make your decisions. In fact, the earlier in the year you can do your tax planning the better off you will be. But, most important, invest only money you can afford to speculate with and then have the patience to see your investment realize a profit.

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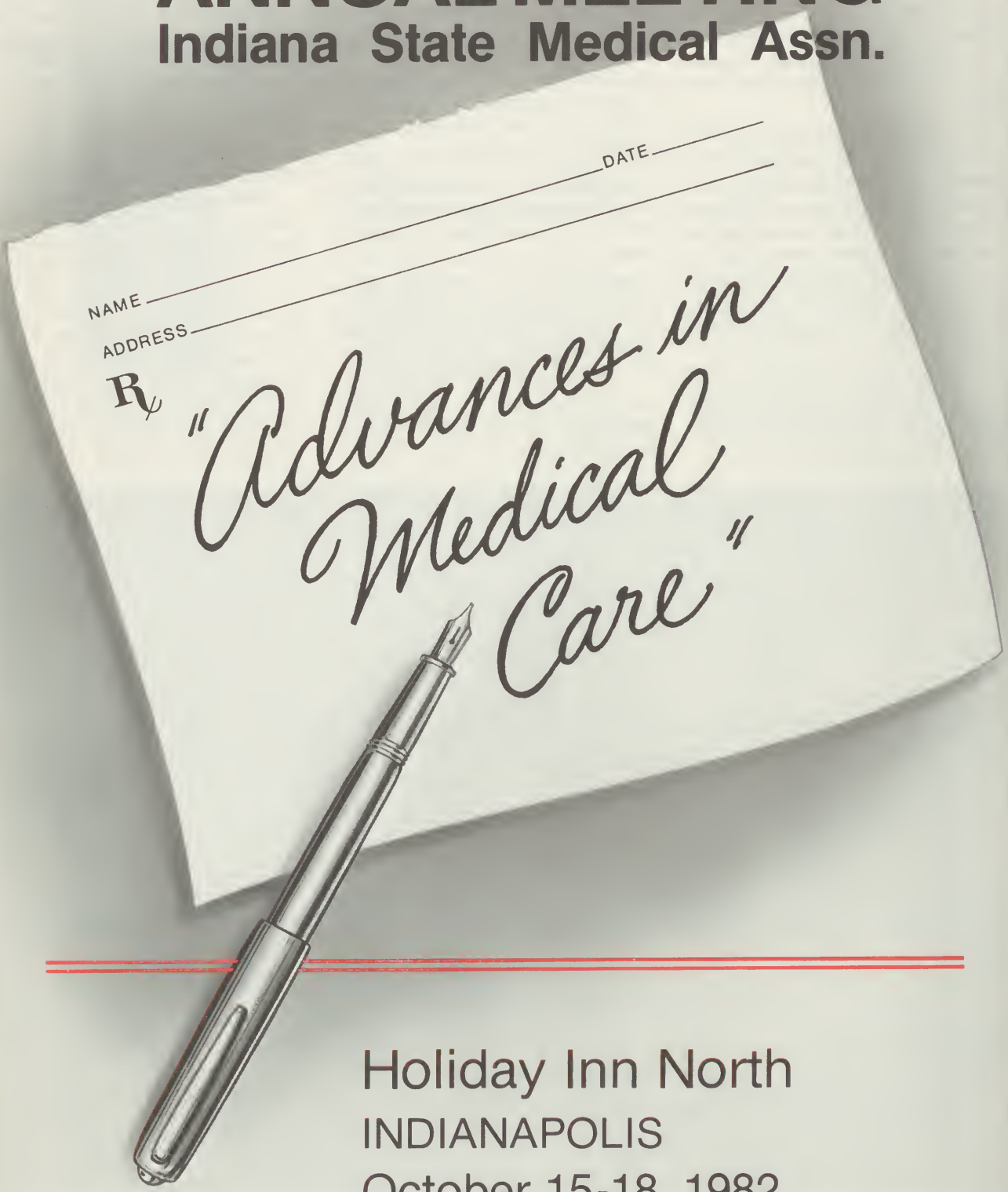


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Medical Leadership in Our New EMS System

'Most of us grossly underestimate both the complexity and the importance to patient care of the EMS system . . .'

JERALD L. ANDREW, M.D.
Chairman, EMS Foundation
Fort Wayne



AN EMS SYSTEM is extremely vulnerable to manipulation and even destruction from practically every kind of outside force—especially the forces of local politics. A great many of our patients will, at one time or another during their lives, have to depend completely upon the EMS system in a life-threatening situation, and the only way to insulate the system from the whims of politics, dramatic but not necessarily productive press coverage, bureaucratic nonsense, false economizing, unscrupulous profiteering, service interruption caused by strike, bankruptcy, or any of a hundred other things that can deal a fatal blow to patient care in the streets . . . the only way to insulate this system from these sorts of calamities is to place the primary control of the entire prehospital care system squarely in the hands of the interested and informed physicians of the community. After a year of working to build our new system, much of that year as chairman of our Emergency Medical Services Foundation, I surely understand that need now.

What's So Hard About Ambulance Service?

Let's see, it seems simple enough. You hire some people and train them. Buy them some ambulances and some on-board equipment and some radios. And when the phone rings and someone asks for an ambulance, you put the people in the ambulance and they drive to the patient, fix him up a little, and take him to the hospital. Then you send a bill, collect the money, pay for the people and the ambulances and the gasoline. And then you wait for the phone to ring again. What could be simpler?

That's precisely the problem. Practically everybody thinks it's just that simple. The politicians, the press, the public, even physicians . . . nearly everyone is tempted to think it's almost that simple. And when we fail to respect the true complexity of an issue, we are likely to make a mess of things, and that is just exactly what has happened in the past in Fort Wayne and a great many other cities.

The problem isn't that its so complex—the problem is that most of us grossly underestimate both the complexity and the importance to patient care of the EMS system. *That's* the problem.

Why Me?

That's a good question. Why must physicians assume the responsibility for overseeing the growth, care and feeding of the Fort Wayne/Allen County EMS System?

First of all, in every case, these are

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our patients that we are talking about. The patient himself is hardly in a position to do this job. And for the most part, families and relatives don't know the difference between superb clinical performance and subtle prehospital fiasco. When you boil it down, the ambulance system is an extension of the rest of the services that we, as physicians, are already responsible for, and since our own patients' lives are at stake, we might as well get involved—and *not* in an advisory capacity.

In the system under development now, physician leadership becomes manifest in the following ways:

1. Our EMS Foundation, Inc. (entirely controlled by physicians) has been given the responsiblity of developing a Uniform Ambulance Ordinance to be adopted by the Fort Wayne City Council and the Allen County Commissioners. In short, this Ordinance will decide what kind of ambulance system will be operating, how it will be regulated, and who will do the regulating. Working with consultants and attorneys, and with no shortage of "input" from everyone imaginable, we are in the final stages of developing that Ordinance—a complicated device to deal with a complicated set of issues.

2. If the Ordinance is adopted, our Foundation will have numerous legal powers such as the power to set standards governing equipment, medical protocols, personnel standards, training content, response time requirements, and other standards. If it affects patient care, we will set the standard. Our standards will not be advice—our standards will have the force of law.

3. We will have the power to appoint and compensate a Medical Director for the entire system. The physician we select will be empowered to implement the policies we have made, and to oversee clinical aspects of system performance on a day-to-day basis. He or she will have governmental authority—the power to issue and revoke licenses, permits, and certification, the power to issue citations for violations of the law established by this Ordinance.

4. We will have the power to conduct physician supervised medical audits. Any physician whose patient has been served by the ambulance system will be able to request such an audit, and it will be performed. Bonafide medical accountability, and the authority to back it up, will be established.

5. With all of this authority will go the associated responsibilities. Our audit process must be seen as educational, supportive, problem solving—not punitive and degrading to the people involved. And we must educate ourselves. Physicians who wish to direct patient care in the field by radio must first become knowledgable of the EMS System, the way it works, its medical capabilities and medical protocols. Perhaps as important as anything, we must be prepared to defend the system, its design, and the people in it from uninformed attack and opposition.

Conclusion

The system we are working to establish has a lot of complex features, and for each feature, we have considered many alternatives, and we have made a decision. Nearly every decision risks controversy, Whether we are talking about fully centralized dispatching, paramedic care on all emergency calls, taking competition off the streets in exchange for periodic competitive bidding, even integrated training for volunteers and paramedic personnel who may be working together as "teams" on the same critical patients . . . almost every issue and the decision it generates creates controversy from some quarter.

But don't let anybody fool you. All these issues eventually boil down to patient care and response time performance. Every decision we have made in the design of this system, and the development of the Ordinance, has its roots in patient care.

And that is why medical leadership in our new EMS System has been critical to the progress made so far and it is why physician leadership has been designed and built into the future structure at both policy making and operational levels.

We are concerned about patient care because these are our patients. Mistakes made in prehospital care are ours to correct, if we are able, and often we are not able. And the biggest mistake of all would be for us to allow those who do not understand patient care and the EMS System we are developing to destroy the progress we have made and must continue making by ill-informed political action.

Our new Three Rivers EMS System has physician supervision and leadership as its cornerstone, and with your understanding and support, we can keep it that way. How can you help? By helping debunk hopelessly simplistic and semi-informed attacks upon our new EMS System and the people whose daily job is to achieve clinical excellence and response time performance. These people need and deserve the support of the community they serve. And by helping to focus questions about rates and subsidy upon apples-to-apples comparisons. I'd like someone to show me an EMS System, serving an American community of similar size, that can more efficiently deliver a paramedic ambulance to the scene of 90% or more of all life-threatening emergencies in under 8 minutes. (For that matter, you'll have trouble finding more than a handful of communities receiving that kind of service at *any* price.)

And finally, you can help by referring your patients needing ambulance service to the Ambulance Authority. Emergency, non-emergency, even long-distance transfer . . . the Ambulance Authority does it all. And it's all professional paramedic service—even the routine transfers. That's because every dollar of the Authority's income goes to support the production of full paramedic level service, so that when disaster strikes, or just an unusually high volume of emergencies occur, or when that "routine transfer" patient suddenly turns sour, the required capability will be there. The best way to support the Three Rivers EMS System is to use it

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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The Physician's Sleep Glossary

Some common sleep laboratory terms

poly•som•no•graph. An instrument which simultaneously records by electrodes physiological variables during sleep—for example, brain activity (EEG), eye movements (EOG), muscle tonus (EMG) and other electrophysiological variables. These readings indicate precisely when patients fall asleep, how many wake periods they experience, the quality of sleep and the duration of sleep.

sleep la•ten•cy. The period of time measured from "lights out," or bedtime, to the commencement or onset of sleep.

wake time af•ter sleep on•set. Intervals of time spent awake between onset of sleep and the end of the sleep period. The polysomnograph registers the length and frequency of the intervals.

to•tal sleep time. The amount of time actually spent in sleeping. This is estimated by subtracting wake times from the period encompassed by the onset and the termination of sleep.[1]

REM/NREM. 1. REM, or rapid eye movement, sleep is "active"—characterized by increased metabolic rates, elevated temperature and arousal-type EEG patterns. 2. NREM, or non-rapid eye movement, sleep represents "quiet" sleep stages. There are four distinct stages of NREM sleep.[2]

re•bound in•som•nia. A statistically significant worsening of sleep compared to baseline on the nights immediately following discontinuation of sleep medication.[3]

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Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

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WHAT'S NEW?

CONTINUED FROM PAGE 596

Searle announces nationwide distribution of Nitrodisc™, a new, once-a-day transdermal therapy for prevention and treatment of angina pectoris. According to clinical research in New Zealand by cardiologists, stable angina patients experienced average increases in exercise time of 30%. The small size Nitrodisc in now on the market. It delivers 5 mg nitroglycerin. A 10 mg disc will be available soon. Both have FDA approval.

Key Pharmaceuticals is introducing Theo-Dur® Sprinkle, the first 12-hour theophylline product specially designed for children and adults with asthma who have trouble swallowing tablets. The medication, in the form of minipellets, is dispensed in easily opened capsules and may be sprinkled on soft food. The pellets contain no starch, dyes or preservatives to which asthmatics may be sensitive.

A new clinical pharmacology journal is completing its first year. *Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy* is concerned with rational therapeutics and clinical drug research. The editor is Russell R. Miller, Pharm.D., Ph.D. Sixteen drugs were evaluated in the first year, and about 30 will be in the next 12-month period. Reviews of new uses for older drugs is one of the journal's features. The annual rate for individual subscription is $55.

In Western Australia the Medi-Clean Enuresis Company announces an enuresis device that has won an Australian Design label as well as an Australian Productivity Award. It is a flexible, nondisposable rubber mat that encloses a high grade stainless steel circuitry connected to an alarm operated by two 9 V batteries. It fits inside a pillow case atop which the patient sleeps. The mat, when wet, sounds the alarm, usually before the patient wets the bed completely. In six to 10 weeks the patient will almost always become conditioned to recognize the sensation of a full bladder. Only the pillow case requires cleansing; the mat has no crevices and is easy to clean.

Philips Ultrasound is introducing a new SDC 4000 Echocardiography System. It is available in EIA and CCIR versions, and stores and displays two separate images in four basic operating modes. Hardcopies in any operating mode can be remotely and automatically controlled with a built-in recorder. A Polaroid or external multi-format camera can also be used for hardcopies.

The 3M Company has a new Steri-Strip Antimicrobial Skin Closure which provides an extra measure of protection against surface contaminants through continuous release of iodine to the patient's skin. The broad spectrum antimicrobial iodophor is the same as the one on 3M Ioban Antimicrobial Incise Drape.

Upjohn announces FDA approval of an addition to the package insert for Loniten tablets to acknowledge the clinical observations that, "When used in severely hypertensive patients resistant to other therapy, frequently with an accompanying diuretic and beta-blocker, Loniten usually decreased the blood pressure and reversed encephalopathy and retinopathy."

Hewlett-Packard has a new, economically priced patient monitor for operating room, recovery room and intensive care unit. The HP 78346A monitor provides an immediate overview of vital patient data, monitoring both ECG and blood pressure together with adjustable alarm limits. For the operating room, electrosurgical interference filtering is available as an option.

ARTEC is introducing a comprehensive line of disposable adult and pediatric anesthesia circuits. The circuits feature an outer fitting mask elbow that reduces air flow resistance and a specially formulated kink resisting hose with inbuilt reinforced cuffs for rapid attachment and detachment from the machine. The circuits are compactly packaged to reduce storage and shipping charges.

THE JOURNAL offers its readers a Continuing Medical Education series of articles prepared by the faculty of the Indiana University School of Medicine. The program is coordinated and supported by a grant from the school's Division of Continuing Medical Education.

As an organization accredited for continuing medical education, the Indiana University School of Medicine certifies that this CME activity meets the criteria for one credit hour in Category 1 for the Physician's Recognition Award of the American Medical Association, provided it is used and completed as designated.

To obtain Category 1 credit for this month's article, complete the quiz on page 631.



The Receptor Concept: Basic to Clinical Science

SUZANNE Y. FELTEN, Ph.D.[1]
HENRY R. BESCH, JR., Ph.D.[2]
Indianapolis

UNTIL RECENTLY, the term "receptor" was used for the most part only by endocrinologists and basic scientists. Endocrinologists spoke of hormone receptors; anatomists, biochemists, physiologists and pharmacologists fondly lectured about a bewildering array of neurotransmitter receptors, opiate receptors, digitalis receptors, and the associated feedback loops regulating them.

Except for satisfying intellectual curiosity, these concepts held little practical importance to the practicing physician. Now, however, much of that has changed. Basic scientists still lecture enthusiastically about these topics, but the receptor concept has come into its own for both medical practitioners and the lay public. Ads in our journals tout the alpha advantage and the beta horizon. Wall Street economists have even been interested. *Newsweek* informs us that Tagamet, a blocker of histamine type 2 receptors, grossed $60 million in sales last year.

The emergence of drugs with high selectivity among receptor types promoted the formerly useless array of facts about receptors to a more useful state of broad generalization. In addition, clearer understanding of receptor subtypes has provided insight into pathophysiologic mechanisms that may be manipulated with the more selective therapeutic agents. Drugs that block cardiac beta receptors to reduce angina pain do not necessarily have to exacerbate asthma by blocking bronchial beta receptors. Conversely, sympathomimetic drugs used to treat asthma need not stimulate the heart.

The path that led to these recent discoveries began with an intuitive definition of receptors and their activities. It was recognized early that the law of mass action applied to the analysis of drug responses,[1,2] as it did to enzyme

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kinetics.[3] This analysis predicted the effects of the presence of competitive and noncompetitive compounds on the tissue responses. Then, drugs began to be classified as agonists or antagonists, depending on whether they evoke or block a biological reaction. However, the responses to certain drugs were found to satisfy some criteria for both agonists and antagonists. To account for the existence of these partial agonists, the terms "intrinsic activity" or "efficacy" were introduced to describe the varying effectiveness of the drug-receptor union.

A drug must have both affinity for a specific receptor (the drug must bind to the receptor) and intrinsic activity (the drug must stimulate the receptor) to evoke a response. Drugs with a high affinity can displace from the receptor those with a low affinity. Drugs having a high affinity but capable of producing only marginal responses were described as partial agonists having low intrinsic activity. Drugs with high affinity but no intrinsic activity served as pure antagonists to the effects of active drugs by competing for occupancy of receptors.

Definition

Receptors are substances that allow selective transfer of information across biological barriers. Most often, the information arises from the outside of a cell, impinging on the cell membrane in chemical form after having either been released from a neuron or transported by the blood. Receptors selectively recognize (bind) a certain range of closely related molecules. If the bound compound is an agonist, the receptor-agonist complex becomes an activated unit that can further act upon (transfer information to) another component of the cell, usually another protein.

For example, cholinergic receptors located in the plasma membrane of a muscle cell become activated by binding with acetylcholine released from a neuron, and in this activated state cause a sodium ion channel to open, allowing sodium ions to enter the muscle, and a membrane potential to be generated.

This ability of a receptor to be selective, and transfer only specific information makes it an important component of cellular regulation. It is the receptor that initiates any action a substance will have on arriving at the cell: excitatory, inhibitory, or ineffective.

For example, in mysthenia gravis the relative lack of available nicotinic cholinergic receptors (due to specific antibodies binding and tying them up) causes a loss in effectiveness of acetylcholine at the neuromuscular junction. Most receptors for neurotransmitters, including those for acetylcholine, norepinephrine, epinephrine, dopamine, serotonin, aspartate, glutamate, glycine, GABA, enkephalins, and angiotensin II are located in cell membranes.

It is not necessary, however, for a receptor to be membrane bound. Steroid hormone receptors, including those for estrogens, androgens, mineralocorticoids, glucocorticoids, and progestins are cytosolic. However, the same sequence of events still occurs for cytosolic receptors: The hormone first binds to the receptor, forming an activated complex that further acts to produce the associated response. In the case of many steroid hormones, the receptor-hormone complex enters the cell nucleus and interacts with nucleic acids, often acting as an inducer or derepressor of genes.

Receptors have much in common with enzymes. They are proteins, they can be regulated by other molecules, their binding can be considered rate-limiting in a series of biological processes, and they can be membrane bound or cytosolic. The major distinction between receptors and enzymes is that the process of receptor binding and activation rarely involves the direct creation or destruction of covalent bonds. Drug-receptor binding occurs through ionic forces.

General Concepts Regarding Receptors

1. **Binding.** The recognition that drug binding affinity is generally linearly related to drug activity among homologous molecules has been the key to success in evolution of new and potent drugs. The term "ligand" may be applied to any small molecules that can bind to macromolecules. With hindsight, it seems remarkable that the importance of high ligand affinity has been perceived so slowly. Apart from the conclusions drawn from classical pharmacologic studies, the specificity inherent in high affinity ligands can be predicted on statistical grounds alone.

Given that the specificity of agonists and antagonists is related to the molecular geometry of the receptor, a drug with optimal grouping for interaction with any one receptor should be suboptimal for interaction with another type of receptor. Thus, affinity for receptor binding implies selectivity between binding sites.

This theoretical implication has been amply confirmed experimentally. Moreover, with high affinity ligands, low concentrations are sufficient to saturate the receptors and at lower drug concentrations, less drug is bound to nonspecific (non-receptor) sites. This maximizes that proportion of the total binding associated with the receptor.

High affinity drugs have provided a great deal of valuable information about drug-receptor interactions, receptor numbers, and even intrinsic receptor regulation. However, the degree of response evoked by the binding of an agonist with its receptor cannot always be predicted by knowing the per cent of receptors bound.

In some cases, a maximal response is obtained even though only a small portion of the available receptors are occupied. Receptors still available after a maximal response has been reached are called "spare receptors". With low concentrations of agonist, high numbers of receptors serve to increase the sensitivity of the cells to that command. Sensitivity of cells to agonist compounds can be controlled in other ways as well. These will be discussed in section 4 below.

2. **Activation.** Once binding of an agonist has occurred, the arriving infor-

mation must be translated into a message understood by the cell. The form that this communication takes varies with the system under consideration, but is generally thought to operate by interaction with certain other molecules that couple the receptor complex with its primary target.

These couplers may be an intrinsic part of the receptor, the primary target, or both, as in the case of the nicotinic chloinergic receptor which exists as an integral part of an ion channel. On the other hand, transient or temporary association of some receptors to the primary targets also occurs.

For example, beta adrenergic receptors are not permanently fixed to their principle effector molecule, adenylate cyclase. Rather, these receptors appear to be mobile within the cell membrane. The receptor recognition step for norepinephrine occurs independently of the coupling of the activated beta adrenergic receptor to the catalytic unit of adenylate cyclase. Although both the receptor and effector molecules are present in the same membrane, in the absence of the agonist they do not couple in a manner that relays information by activating adenylate cyclase.

Thus, the component of drug-receptor interaction previously termed intrinsic activity or efficacy may be physically explicable. Agonists not only bind tightly to receptors but they also induce molecular rearrangements promoting coupling of the occupied receptor to the primary effectors. Pure antagonists have no coupling-promotion capability, even though these antagonists in general display very high affinity for the receptors. It should be mentioned that not all receptors whose primary target is adenylate cyclase are loosely associated with the enzyme. Adenosine receptors, for example, are thought to be irreversibly associated with adenylate cyclase.

3. **Post Receptor Events.** Many receptors located in plasma membranes have as their primary targets enzyme or other components that are also associated with that membrane. For the appropriate biological response to take place, the primary target produces a second messenger within the cell that can further interact with other cell components to elicit the approximate response. Adenylate cyclase serves as the primary target of many well characterized receptor systems. Agonist binding with the receptor may activate or inhibit adenylate cyclase, thereby increasing or decreasing the cellular level of cAMP.

Cyclic AMP acts as a second messenger in the chain of events that begins with the arrival and binding of the first messenger, the agonist, with the receptor, and ends with specific biological changes within the cell. For example, cAMP is responsible for activating several cyclic AMP-dependent protein kinases which, in turn, cause the phosphorylation of other proteins, thereby altering their properties and functions. This phosphorylation can cause enzymes such as phosphorylase kinase to become active; it may cause a conformational change in membrane proteins, changes in permeability of the cell membrane; it may even cause a change in nuclear histones, initiating synthesis of new proteins.

4. **Receptor Regulation.** The human body defends against excessive stimulation or blockade of its receptors. Under normal conditions, receptors can be thought of as having a given set point of sensitivity for a given substance that represents the sum of multiple influences. To change the aggregate sensitivity of a receptor, either the number of available receptors, or the affinity of these receptors for their ligand may be altered. Receptors respond in a qualitatively different manner when binding to an agonist as opposed to an antagonist.

Antagonist-receptor interactions do not promote coupling of the receptor to its primary target. Instead, antagonist-receptor interactions result in receptor occlusion, with no post-receptor activity generated. Antagonist binding has the effect of reducing the number of receptors available for binding with other compounds.

Agonist-receptor interactions, on the other hand, promote coupling and appropriate biological effects. The magnitude of a response to an agonist can be determined by the amount of agonist present, but it can also be regulated by either receptor number or affinity. When receptors are persistently activated by agonists, changes are set in motion to limit the response in a form of negative feedback called "down-regulation" of receptor number. This decrease in receptor number as a result of continuous agonist bombardment helps explain such phenomena as desensitization and tachyphylaxis or loss of tissue responsiveness to a drug.

Conversely, chronic treatments with receptor blockers can "up-regulate" receptor number. Abrupt discontinuation of antagonist usually induces rebound phenomena. This up or down-regulation of receptor number can even be induced by hormones which do not interact directly with the receptor in question.

Chronic thyroid deficiency, for example, down-regulates the density of beta adrenergic receptors in the myocardium, thus decreasing the availability of the beta adrenergic receptors to beta adrenergic agonists and antagonists. Conversely, hyperthyroidism up-regulates the number of cardiac beta adrenergic receptors and correspondingly increases the ability of low concentrations of the beta adrenergic agonist norepinephrine to augment cellular responses.

Muscarinic cholinergic receptor activation, too, affects the apparent sensitivity of myocardial beta adrenergic receptors for isoproterenol, but it does so by changing the affinity of beta receptors for their agonists. This effect occurs rapidly (minutes or less), resulting in an increase in beta adrenergic receptor affinity for agonists and a corresponding decrease in activated beta adrenergic receptor coupling to adenylate cyclase. Increases in the number of receptors can also be caused by agonists, as in the case of angiotensin II.

Other types of interactions between receptors for individual agonist hormones can increase the number of re-

TABLE
Receptor Types and Some Currently Useful Examples

Receptor Type	Agonists	Antagonists	Currently Useful Drugs	
			Agonists	Antagonists
ADRENERGIC				
alpha	epinephrine	phentolamine ergot alkaloids		Regitine
$alpha_1$	phenylephrine	prazosin		Minipress
$alpha_2$	clonidine	yohimbine	Catapres	
beta	isoproterenol	propranolol nadolol	Isuprel	Inderal Corgard
$beta_1$	norepinephrine	metoprolol atenolol		Lopressor Tenormin
$beta_2$	metaproterenol terbutaline		Metaprel Brethine	
CHOLINERGIC				
nicotinic	acetylcholine	gallamine tubocurarine		Flaxedil Tubarine
muscarinic	acetylcholine	atropine		
DOPAMINERGIC	dopamine bromocriptine	haloperidol	Parlodel	Haldol
HISTAMINE				
H_1	2-methylhistamine	diphenylhydramine		Benadryl
H_2	4-methylhistamine	cimetidine		Tagamet
OPIATE				
	morphine met-enkephalin leu-enkephalin beta-endorphin	naloxone		Narcan
SEROTONIN	LSD psilocin	cinaserin cyproheptadine methysergide		Periactin Sansert

ceptors for one of the hormones. For example, estrogen can increase the number of progestrone receptors in the uterus.[4]

Another potent and very important cause of receptor up-regulation is the decrease or disappearance of an agonist, particularly a neurotransmitter. For example, it is well known that acute damage to motor neurons will cause a denervation supersensitivity of the muscle supplied by that nerve. This supersensitivity has been shown to be due to a large increase in the number of nicotinic cholinergic receptors, not only at the neuromuscular junction, but also over the entire surface of the muscle cell membrane. Similar supersensitivity can also be produced by treatment with drugs that deplete neurotransmitters. For example, reserpine depletion of monoamines will cause an up-regulation of their adrenergic receptors.

Perhaps the most widely recognized example of changes in receptor affinity occurs in diabetes. As the occupancy of insulin receptors increases, a corresponding increase occurs in the rate at which the insulin-insulin receptor complex dissociates. This example of decreased affinity is called negative cooperativity.[5] Thus it should be clear that fluctuations in receptor numbers and affinities may be caused by normal physiological mechanisms as well as by chronic administration of drugs.

Specific Receptor Subtypes

Intensive studies of agonists and antagonists in recent years have revealed receptors for many biologically active compounds. These receptors are usually named for the endogenous compounds that activate them (e.g., adrenergic receptors, cholinergic receptors, serotonin receptors, insulin receptors, etc.) but in ignorance of endogenous substrates, they may be named for an exogenous chemical (e.g., morphine receptors).

Very early on it was realized that there were subtypes of receptors that were activated by the same compound, but could be shown to have other distinctive characteristics. Some examples of receptor subtypes, and some specific agonists and antagonists are listed in the *Table*. This Table is by no means complete, but demonstrates some of the selectivity possible in currently available drug therapy.

More recent studies have further subdivided beta adrenergic receptor types into two subtypes, $beta_1$ and $beta_2$.[6] $Beta_1$ adrenergic receptors were found to be about equally affected by norepinephrine (NE) and epinephrine (EPI) and to mediate the cardiac effects of these compounds. $Beta_2$ receptor mediated effects were more strongly elicited by EPI than by NE and initiate the relaxation of smooth muscle.

New drugs are now available that take advantage of the selectivity of action at different receptor subtypes. For example, adrenergic agonists such as salbutamol and terbutaline at therapeutically effective concentrations will selectively stimulate $beta_2$ receptors, causing bronchodilation, while causing little or no additional $beta_1$ stimulation of the heart. Such selectivity prevents not only inappropriate myocardial stimulation, but also unwarranted down regulation of $beta_1$ receptors.

Alpha adrenergic receptors also have been divided into two distinct subtypes,[7] each mediating different effects of alpha receptor stimulation. Some alpha adrenergic agonists cause inhibition of NE release from sympathetic nerve terminals. This feedback inhibition can be

blocked by certain alpha adrenergic antagonists such as phentolamine, but not by the classical alpha adrenergic blocker yohimbine. The selective blockade of alpha receptors on sympathetic nerve terminals, that is, presynaptic alpha receptors, gave rise to the idea[8] that presynaptic alpha adrenergic receptors were a specific subtype, designated alpha$_2$. Postsynaptic alpha adrenergic receptors were designated alpha$_1$.

It is clear from examining the available information on adrenergic receptors that many receptor subtypes can exist. It is possible, however, for a receptor to exhibit binding characteristics that vary depending on the binding conditions in the physiological milieu. For example, both opiate receptors and dopamine receptors may exist in different conformational states depending on the presence of sodium in the extracellular environment. The binding properties of these conformations are unique.

Drugs have been and are currently being developed that take advantage of selective binding with specific receptors. One area of recent interest has been the subpopulations of histamine receptors. Acid secretion in the gut is stimulated by histamine and related compounds, but is not blocked by classical antihistamines such as mepyramine that are used to treat allergy symptoms such as runny nose. Acid secretion is mediated by a different receptor, designated the H_2 receptor, and can be selectively blocked by drugs such as cimetidine and metiamide. These drugs have been particularly useful in the supression of acid secretion in the treatment of peptic ulcers.

Clinical Significance of Receptor Research

Drug design based on selective receptor properties is in its infancy but much progress has occurred recently. Drug selectivity greatly diminishes the side effects of drugs, enhancing the effectiveness of the therapy. Research is continuing to provide evermore selective therapeutic measures. For example, replacement therapy with insulin and steroid hormones has been in use for a long time.

More recently, specific replacement of the central nervous system neurotransmitter dopamine by administration of l-DOPA was developed for the treatment of Parkinson's disease. Receptor blockers have been developed to protect receptors from too much stimulation in certain disease states. For example, the outpouring of catecholamines in pheochromocytoma necessitates blocking of both alpha and beta adrenergic receptors.

Ever greater selectivity has been achieved in developing more highly selective agonists and antagonists to receptor subtypes. For example, the selective agonists for beta$_2$ receptors, such as terbutaline and metaproterenol can be used in the treatment of asthma. The selective antagonist cimetidine has been mentioned above. The selective antagonist of alpha$_1$ receptors, prazosin, lowers blood pressure without interfering with the presynaptic negative feedback loop that would otherwise render it as useless as the nonselective alpha adrenergic blocker phentolamine.

Receptor pathology has been attributed, among other causes, to antibody (autoantibody) binding to receptors. Myasthenia gravis is at least partially the result of anti-nicotinic cholinergic receptor antibody binding with nicotinic receptors at the neuromuscular junction, and effectively preventing those receptors from functioning.[9] Some forms of insulin resistant diabetes are also associated with blood-borne insulin receptor antibodies. Antibody binding to receptors does not always decrease the biological response. Apparently antibody binding can have agonist effects as in Graves' disease, where autoantibodies to thyroid receptors cause large increases in the amounts of T_3 and T_4 released. This increase in thyroid hormone causes a secondary increase in beta adrenergic receptors which may account for many of the symptoms associated with hyperthyroidism. Tardive dyskinesia is also thought to be due to an up-regulation of dopamine receptors in specific regions of the central nervous system, induced by using dopamine receptor blocking drugs such as phenothiazines and butyrophenones in the treatment of schizophrenia.[10]

Besides providing selective drug therapies and explaining certain pathological states, receptor research has provided methods such as the radioimmunoassay and radioligand binding by which clinical laboratories can actually measure certain receptors. Knowing whether competent receptors exist, their number, and their affinity allows a judicious, rational choice of therapies.

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Central Nervous System Lesions in Fisher Syndrome: Report of a Case with CT Findings

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ABSTRACT

The CT appearance of lesions underlying the Fisher syndrome, a rare variant of the Guillain-Barre syndrome, have not been described. A patient with the Fisher syndrome had a CT scan of the head showing an area of decreased density in the upper brainstem. Electromyography was consistent with the presence of lower motor neuron dysfunction. There are both central and peripheral lesions associated with Fisher syndrome. Our case suggests that the clinical symptomatology correlates better with the central nervous system lesions.

Key words: Ataxia; tomography, x-ray computed; polyneuritis; opthalmoplegia; central nervous system diseases.

Case Report

AB is a 52-year-old right-handed white man who presented to the Indiana University Medical Center (IUMC) in late spring with chief complaints of diplopia, ataxia and dysarthria. Approximately 10 days prior to admission, AB was treated by his local physician for what was diagnosed as a "strep throat" or a "viral" upper respiratory infection. After the development of ataxia and oculomotor difficulties he was transferred to the IUMC.

General physical examination was non-revealing and neurological examination revealed external opthalmoplegia, areflexia and ataxia. CT scan of the head obtained that night showed an area of decreased density in the upper brainstem felt to be strongly suggestive of the presence of an abnormality (*Figure*).

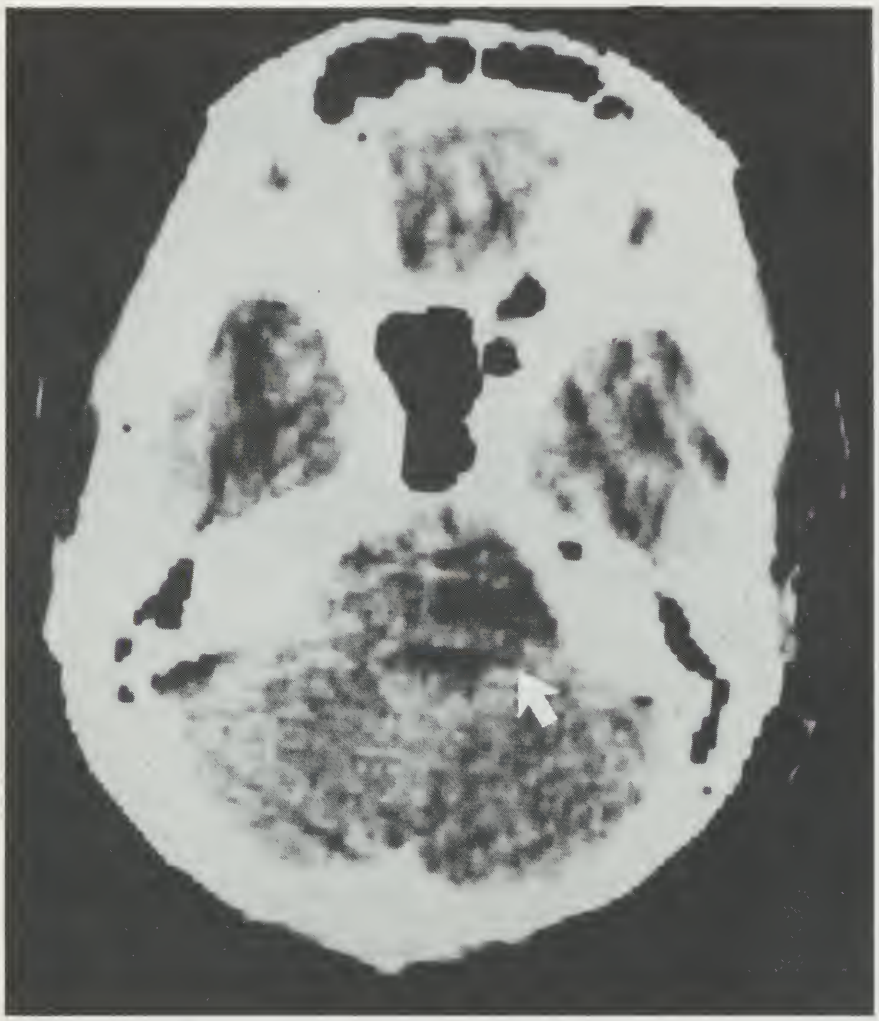
Lumbar puncture performed on the night of admission yielded spinal fluid that was within normal limits. Spinal fluid obtained three days after admission showed four white cells (90% lymphocytes), protein of 94 and glucose of 90. After two weeks AB's clinical condition started to improve.

CT scan performed six weeks after admission, when clinical residua of the Fisher syndrome were minimal, was felt to be normal; the area of decreased density was no longer seen. On EMG taken on the same day there were significant abnormalities suggestive of lower motor neuron involvement: Many broad based, polyphasic motor units were recorded and conduction velocity in the right median nerve was mildly reduced

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CT scan of the head showing area of decreased density in the upper brainstem (arrow).

(47 m/s). On follow-up examination there was some minimal diplopia on far left gaze; otherwise there were no residua of the Fisher syndrome.

Discussion

Based on his analysis of the clinical symptomatology, Fisher concluded that central nervous system lesions were involved in the pathogenesis of Fisher syndrome.[1] Schumm and Geysel[2] concluded from their review of 51 cases of Fisher syndrome and of the literature that there are probably cerebellar and brainstem lesions in Fisher syndrome. No reports of autopsies on patients with the complete Fisher syndrome have been reported.[3]

Central nervous system lesions, usually felt to be secondary to the peripheral nervous system lesions, have been found in patients with portions of the Fisher syndrome.[4,5,6] Behan and Geschwind[7] concluded from their patient and review of the literature that the primary lesions in Fisher syndrome are located peripherally.

Isonishi and co-workers,[8] on the other hand, felt that both peripheral and central nervous systems could be involved in Fisher syndrome and that the peripheral involvement was of much less importance than the central involvement. This patient had the complete Fisher syndrome and supports the hypothesis that there are central nervous system and peripheral nervous system lesions in Fisher syndrome. The temporal course of the clinical manifestations of the Fisher syndrome in AB appear to correlate better with the evidence of central nervous system involvement than with that of peripheral nervous system involvement.

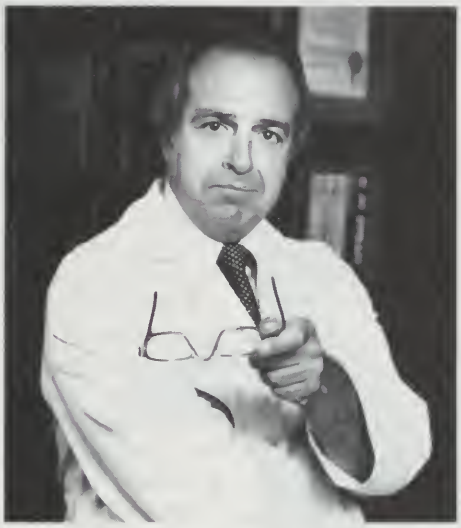
Summary

The Fisher syndrome is an interesting, clinically defined syndrome characterized by the triad of opthalmoplegia, ataxia and areflexia.[1] It is thought to be etiologically related to the Guillain-Barre syndrome. The site and nature of the pathology responsible for the Fisher syndrome have not been unequivocally defined.[3] CT evidence of central nervous system lesions in Fisher syndrome has not been published previously. We present a case of Fisher syndrome with CT evidence of central nervous system involvement.

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Immunologic Changes from Light

Clinical Notes

A PREVIOUS COLUMN reviewed some basic photobiology as well as polymorphic-light sensitive eruption and certain other cutaneous reactions to light. However, light not only can induce allergic reactions but it also can change skin reactivity.

Since antiquity certain skin diseases such as psoriasis have been known to be responsive to sunlight exposure. Dermatologists have used ultraviolet light as well as sunlight to treat eczema, mycosis fungoides, pitriasis rosea, acne (this is controversial), seborrheic dermatitis and other conditions.

While current use does not always follow tradition, various forms of light are still useful. Ultraviolet light probably benefits eczemas by its short-term effect on the immune response of the skin. The long-term picture has not been thoroughly investigated, although O'Dell, *et al*[1] found chronically sun-damaged skin to be less reactive, implying that this contributes to the carcinogenic effect of UV light.

Both UVB (the sunburn range) and the combination of near ultraviolet (UVA) plus psoralens (PUVA) depress the function of peripheral lymphocytes and the induction phase of delayed hypersensitivity.[2] However, UVB does, but PUVA does not, alter the immune response to phytohemagglutinin and to UVB-induced tumors. Exposure to UVB radiation depresses the induction of allergic contact dermatitis, probably by damaging Langerhans' cells. These cells do not die, but lose their surface Ia-like antigens,[3] and this interferes with antigen presentation, but does not stop development of antigen-specific T-suppressor cells.[4] Thus, tolerance results rather than allergy.

Renal transplant patients[5] and psoriatics treated with PUVA[6] have an increased incidence of skin cancer, implying that the immunosuppressive effect of sunlight could also be etiologically important. Transplanting UV-induced tumors into irradiated and nonirradiated animals allows a look at the immunologic effect without the direct effect of light on epidermal cells, and it shows that the tumors grow in irradiated animals but not normals.[7,8] The effect of UVL on Langerhans' cells is transient, but inhibition of tumor surveillance is permanent, suggesting again that tolerance is created. T-suppressor cells do appear prior to the appearance of tumors.[4]

Failure of the immune response ostensibly occurs not only because Langerhans' cells are altered but also because new antigenic determinants are created by UV-induced membrane damage, (causing suppression to dominate), and because the altered epidermal cells produce cross-reactive antigens without further exposure to UV-light.[4]



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Many immunologic functions are not affected at usual levels of light exposure.[4] For example, UV-irradiated and normal mice have equivalent numbers of B cells, T-cells, and macrophages. They also do not differ in response to concanavalin A, mixed lymphocyte reactivity, production of cytotoxic lymphocytes, or antibody production following stimuli. They do differ in their response to tumors.[4]

Paradoxically, therefore, light can both cause and relieve skin hypersensitivity reactions according to the circumstances. In one situation photosensitivity develops, and it can be severe. In another case immune response is reduced, and this may be beneficial or harmful, again dependent upon the situation. Just as with drug usage, we must weigh the advantages against the potential for harm in each case.

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Maternal Mortality in Indiana: A Report of Maternal Deaths in 1980

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THE FOLLOWING is the annual report of the Indiana Maternal Mortality Study Committee. There were 11 maternal deaths in 1980. In that year Indiana recorded 88,420 live births. This gives the state an official maternal mortality rate of 12.4 deaths per 100,000 births in 1980. Each death was presented for discussion, establishment of final diagnosis, and assignment with regards to preventability and responsibility.

Three cases involved infection. One was a "Glory Barn" (religious sect) case in which the patient developed septicemia after delivering a stillborn macerated infant at home. The second patient developed infection after a cesarean section. The third case involved a septic abortion with overwhelming septicemia. Each of these cases were thought to have preventable factors.

There was one death involving an anesthetic administered at the time of a cesarean section. This was a general anesthetic administered to an obese patient and ventilation problems occurred.

There was one case of pulmonary embolism in a patient who developed leg pain following a cesarean section.

There was one case of liver disease and disseminated intravascular coagulation.

One patient ruptured a cerebral aneurysm one week postpartum. Her death was thought not preventable, although she had complications immediately after birth with postpartum atony and hemorrhage.

Four deaths were considered non-obstetric. One patient had leukemia at 26 weeks gestation. A second had venous thrombosis of the small bowel at 14 weeks gestation. A third developed meningitis five weeks after delivery. A fourth died of complications of diabetes mellitus at 10 weeks gestation.

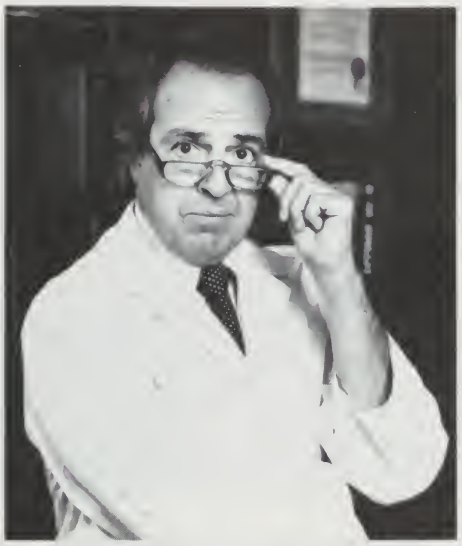
Although we have made considerable strides in reducing maternal mortality, it is apparent that 50% to 75% of maternal deaths are preventable or have preventable factors. With the increased incidence of cesarean section, we probably will see an increase in maternal morbidity and on occasion mortality. Many states are reactivating their maternal mortality committees. There is an effort by the Maternal Mortality Interest Group of the American College of Obstetricians and Gynecologists to gather statistics on a national basis.

Please report any Indiana maternal mortality to Dr. William D. Ragan, Department of Ob-Gyn, Indiana University Medical Center, 1100 W. Michigan St., Indianapolis, Ind. 46223.

Dr. Ragan is chairman of the 13-member Indiana Maternal Mortality Study Committee. An earlier report by the committee, "Maternal Mortality in Indiana: A Report of Maternal Deaths in 1979," appeared on page 565 of the September 1981 issue of THE JOURNAL.

Members of the Indiana Maternal Mortality Study Committee are Gordon C. Cook, M.D., Robert H. Oswald, M.D., Charles Gillespie, M.D., Jesse D. Hubbard, M.D., Charles Kelley, M.D., Elfred Lampe, M.D., George Porter, M.D., William D. Ragan, M.D., Rick Cross, M.D., Sam Ravindran, M.D., Ted Danielson, M.D., Clarence Ehrlich, M.D., and Kathy Visovatti Weaver, R.N.

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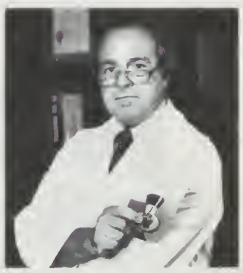
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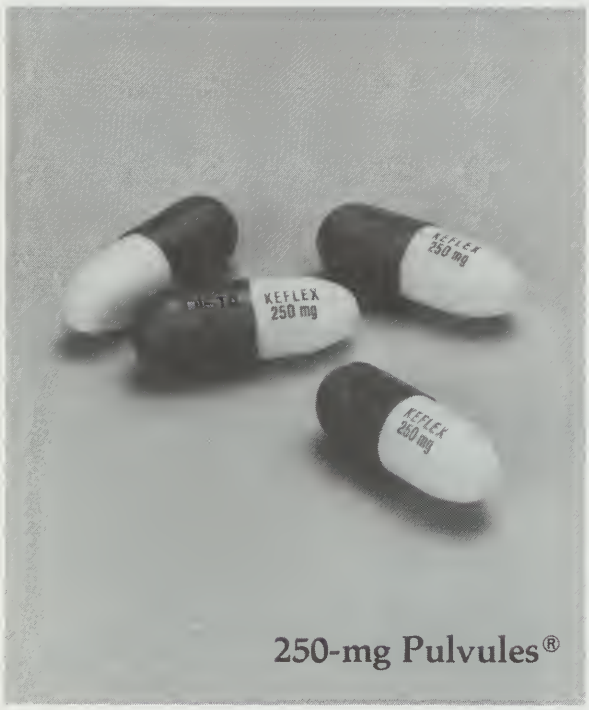
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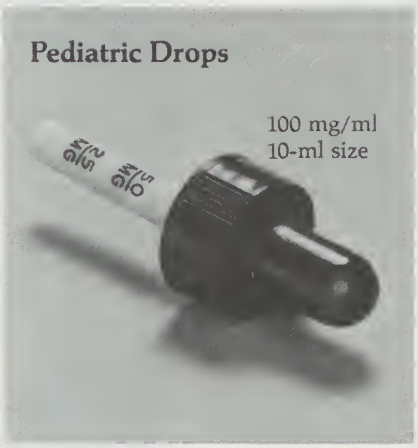
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CME QUIZ

The Receptor Concept

CONTINUED FROM PAGES 618-622

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. The sympathetic stimulation of the heart characteristic of hyperthyroidism is best explained by which of the following statements?
   a. Thyroxine directly stimulates the release of norepinephrine.
   b. Thyroxine causes the up regulation of cardiac beta receptors.
   c. Thyroxine blocks reuptake of norepinephrine.
   d. Thyroxine is a monoamine oxidase inhibitor.
2. Partial agonists
   a. are used when only a small increase in receptor stimulation is desired.
   b. produce only marginal responses because they exhibit low affinity binding.
   c. have high affinity for the receptor but low intrinsic activity.
   d. require the presence of another compound in order to cause full response.
3. The specificity of agonist and antagonist drugs:
   a. is related to the molecular geometry of the receptor.
   b. determines the intrinsic activity of the drug.
   c. is not similar for agonists and antagonists.
   d. is unrelated to drug receptor affinity.
4. Antagonists exhibit high affinity for receptors but do not cause the appropriate biological response because
   a. antagonists fail to cause coupling of the receptor with its primary target.
   b. antagonists remain bound only a short time before they are displaced by another high affinity molecule.
   c. antagonists do not actually bind to the receptor, they simply keep agonists from binding.
   d. antagonist binding to a receptor irreversibly destroys it.
5. Binding of drugs to receptors involves:
   a. creation of covalent bonds.
   b. destruction of covalent bonds.
   c. ionic bonds.
   d. none of the above.
6. A schizophrenic patient has received chronic phenothiazine therapy over the last several years. He begins to show tics which further develop into involuntary choreaform movements. These characteristic symptoms of tardive dyskinesia are most likely due to
   a. complete abolition of all dopamine receptors.
   b. a potent agonist effect of phenothiazines on dopamine receptors of basal ganglia neurons.
   c. up-regulation of dopamine receptors on basal ganglia neurons due to chronic dopamine blockade.
   d. an excitatory effect of phenothiazines at the neuromuscular junction.
7. A pharmacologist has discovered a new drug which has as its main effect a drying of oral and bronchial secretions and a transient tachycardia. Which of the following is the most likely identification of this drug?

CONTINUED ON PAGE 646

August CME Quiz Answers

Following are the answers to the CME quiz that appeared in the August 1982 issue of THE JOURNAL: "Schizophrenia: An Update," by Matthew R. Galvin, M.D., and Hugh C. Hendrie, M.B. Ch.B.

1. a	6. d
2. b	7. d
3. c	8. c
4. b	9. a
5. d	10. b

Answer sheet for Quiz: (Receptor Concept . . .)

1. a b c d	6. a b c d
2. a b c d	7. a b c d
3. a b c d	8. a b c d
4. a b c d	9. a b c d
5. a b c d	10. a b c d

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing lable)

Signature

To be eligible for this month's quiz, send your completed, signed application before Oct. 10, 1982 to the address appearing at the top of this page.

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PUBLIC HEALTH NOTES

10-Year Growth Spurt Noted in Indiana's Rural Counties

As part of the commemoration of its 100th year, the Indiana State Board of Health last year developed a detailed analysis of population changes occurring in Indiana between 1880 and 1980.

One of the most interesting phenomena noted was the growth of the state's rural counties in the 1970-80 period. In the past decade, for the first time in history, Indiana's rural counties grew at a faster rate than the state as a whole. (This was not only a local or regional occurrence, as the same situation prevailed for the United States as a whole.) Even the least populous 10 counties increased their share of Indiana's population during this period.

A paradox related to this situation is that, even though the state had its lowest rate of growth in history between 1970 and 1980 (5.7%), more counties than ever before (57 compared to a previous high of 46) had positive net in migration. At the same time, only 12 counties (a record low) lost population, and five of these ranked in the top 10 in population.

While the rural areas were growing, the major urban counties were standing still or declining. As a group, urban counties had no population increase and showed a marked drop in their share of the Hoosier population. Cities fared even worse with eight of the 10 leaders, including all five cities over 100,000 losing population. Going further, 40 of the 102 places of more than 5,000 population listed in the 1980 Census lost population, a figure which compares with the previous high of 24 set 10 years before.

In regional perspective, southern Indiana, largely a rural section, increased its share of Indiana population for the first time in more than a century. Both northern and central Indiana, each relatively urban, showed declines in their proportions.

To put these developments in focus, it is necessary to look back over previous population changes.

The end of the 19th Century and the first third of the 20th marked a period in which the major cities were in ascendancy. From 1880 to 1930, Indiana's 10 largest cities increased their share of the state's population from 12% to 33%. At the same time, rural areas were in decline, with 61 of the states's 92 counties (almost all rural) having a smaller population in 1930 than in 1900.

The 1930s gave the rural areas a temporary respite with the "back to the farm" movement of the Depression years; but with the coming of World War II, these areas resumed their population decline, except for those surrounding major cities which became part of the post-war suburban boom. After 1945, these new suburban counties with their bedroom communities led the state in growth, while the cities and major urban counties were, in effect, put on the back burner. It was not until 1970, however, that the rural areas showed any serious growth potential.

By extrapolating from figures of the Health Care Financing Administration, U.S. Department of Health and Human Services, it can be estimated that Hoosiers spent some $6 billion for health care in 1980. This figure is not likely to decrease; and in dealing with figures of this magnitude, we have a vital interest in knowing not only where people are today, but in what directions they will be moving in the next five to 10 years.

Certainly, the medical community cannot ignore these developments and their implications. Will central cities maintain their present positions as medical centers? Should physicians be encouraged to start their practices in rural areas and small towns? What about new hospitals and related health facilities? These are questions that need to be examined not only in the light of what happened during the past decade, but what may be expected to occur in the 1980s and beyond.

There is, then, more than a passing interest in the rural population revolution of the 1970s. Will the phenomena that led to the rural resurgence of the past decade persist into the 1980s and beyond? This is a question we will be examining carefully as information on post-1980 population trends begins to become available.

10 Years Ago . . .

As a result of a health survey in southern Indiana, a pilot program known as the "Forty Families Project" was set in place in 1972 with selected low income families from Spencer, Perry, Crawford and Harrison counties. From this two-year project, methods were developed to upgrade and maintain the overall health of such families through primary medical assistance, health education and training.

Two venereal disease control programs were initiated during 1972 to address what was considered to be the foremost public health problem in the communicable disease area for teenagers and young adults. One of the projects was designed to expand and supplement existing local projects while the other provided for a gonorrhea detection laboratory program for the five areas of the state with the highest venereal disease incidence rate.

A major step was taken toward addressing air pollution problems in Indiana with the preparation of an air pollution control plan. Submission of the plan to the U.S. Environmental Protection Agency and the receipt of federal supporting funds enabled the staff to expand from 11 to 31 people, thus permitting more adequate investigation of the growing number of air pollution complaints.

AMA scientific activities expanding

New on the scene at the American Medical Association are three major programs that will provide more scientific information to physicians and others and will do so more rapidly than was generally possible in the past. These new programs are in addition to the Association's long-standing activities relating to the communication of scientific information.

One of the primary means of assessing medical innovations and providing information has always been through the AMA's scientific publications. A second important means has been through the reports of the Council on Scientific Affairs, many of which have been published in *JAMA*. Also, members of the staff of the AMA Library and of many other AMA departments respond annually to thousands of requests for scientific information.

Now, in a major breakthrough in the dissemination of medical information, the AMA is joining with General Telephone and Electronics (GTE) to develop and operate the first nationwide medical information network. Information required for use in patient care will be instantly available on computer terminals at any location in the country.

The only equipment required for a physician's office, a hospital, or a related organization to participate in using the system will be a basic terminal, of which many already on the market are compatible, and an existing telephone line. By dialing a local telephone number, the user can call up requested information within seconds on the terminal.

Starting with information on drugs (based on **AMA Drug Evaluations**), the system will expand to add a broad range of up-to-the-minute clinical information and protocols, as well as socioeconomic information. It will begin operation in late 1982.

In recent years, there has been a proliferation of procedures and technologies in medicine and increasing concern about their benefits, hazards, effectiveness and costs. The AMA has recognized the need to expand its activities in searching out and assessing both new and obsolete technologies. In a new project, Diagnostic and Therapeutic Technology Assessment (DATTA), the AMA is extending its capability to respond to concerns about the relative merits of new and existing technologies related to medical practice, education and research.

Inquiries submitted in accordance with criteria established by the AMA will be accepted. The Council on Scientific Affairs and its Technology Assessment Subcommittee will oversee the program. Staff, under the direction of the Council, will address questions or refer them to the appropriate forum.

Responses will be based on authoritative scientific and technical information. Members of a panel of physicians and scientists from all fields of medicine appointed by the Council will be involved in developing responses.

Responses to questions will follow a common format and be limited to evaluations of the safety and efficacy of procedures or therapies. Each answer will be structured to reflect an established, investigational, acceptable, or indeterminate status.

Yet another new AMA program just getting under way will benefit both physicians and their patients directly. That is the Patient Medication Instruction (PMI) program. The AMA will be supplying printed information sheets to physicians about certain drugs, which may then be given to their patients along with their prescriptions. These PMIs will reinforce the physician's verbal instructions to the patient and enhance patients' knowledge about the drugs they are taking. Initially, PMIs for 20 of the most widely prescribed medications will be distributed. By the end of 1984, PMIs on up to 200 widely used drugs will be available.

These programs that expand the AMA's scientific activities are another example of the Association's commitment to its original purpose, "to promote the science and art of medicine and the betterment of the public health." They are an example, as well, of AMA's leading role in responding to rapidly changing needs of the nation's physicians and the public.

Such leadership requires your support. The larger our membership (now nearly 240,000) the greater our influence, and our strength as the only representative for all of medicine.

For details on how to join, contact your state or county medical society or the Division of Membership, American Medical Association, 535 North Dearborn, Chicago, Illinois 60610, (312) 751-6196.

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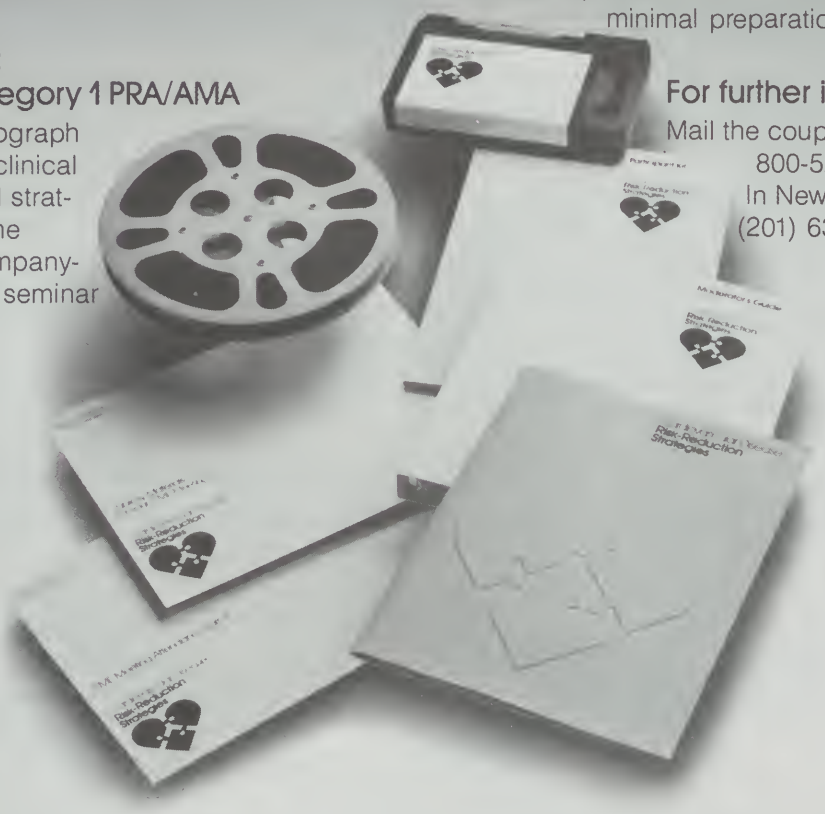
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#84-047-2-23-00: "Non-Hodgkin's Lymphomas", with Ronald F. Dorfman, M.R.C. Path., Professor of Pathology, Co-Director, Laboratory of Surgical Pathology, Stanford University School of Medicine. 36 minutes (1976).

#83-047-1-08-00: "Malignant Melanoma: Histologic Interpretation and Prognostication", with Richard J. Reed, M.D., Professor, Department of Pathology, Tulane University School of Medicine; Martin C. Mihm, Jr., M.D., Associate Professor Dermatology and Pathology, Massachusetts General Hospital; and Wallace H. Clark, Jr., M.D., Professor and Chairman of the Department of Pathology, Temple University Medical School. 40 minutes (1975).

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Two additional videotape sets in this oncology series are presently being reviewed for distribution.

A recent article in *Families* by Peggy Mann, "Don't Let Your Family's Health Go Up in Smoke," reviews the latest statistical data on smoking and health. The author points out, sighting some of the numbers, to quit smoking would mean a mortality reduction of 90% from lung cancer and tracheal cancer; a 50% reduction of all bladder cancer deaths; a 33% reduction from coronary heart disease; and an 85% reduction of deaths from bronchitis and emphysema.

The article suggests some striking effects on second-hand smoke on members of a smoker's family. The article also reported that 70% of teenage girls surveyed had not been cautioned about smoking by either their doctor or clinic.

Another article, "Carrots Against Cancer," by Steve Findley, speaks of a new study of the dietary habits of about 2,000 Western Electric employees in the Chicago area, headed by Dr. Richard Shekelle, which seems to support Dr. Richard Peto's theory that the beta-carotene formed in vegetables, not the preformed Vitamin A in dairy products, reduces the risk of cancer.

Other epidemiological data, the article says, show a below average risk of developing cancer to people who eat foods rich in beta-carotene. But, "People should not rush out and buy Vitamin A in hopes of preventing cancer," NCI's Dr. Michael Sporn says. While some retinoids appear to have a cancer-preventive effect, "the vitamin A available over the counter is not effective in this way."

Both articles were taken from *Oncology Times,* June 1982.



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Release of Patient Information



The Judicial Council of the American Medical Association, along with the AMA House of Delegates, is responsible for issuing pronouncements on ethics and the physician's responsibilities with the media. The latest issue of the AMA Judicial Council Opinions and Reports encourages physicians to work with the communications media as an integral and important part of the principle of upholding the responsibility of the physician to society as a whole. The guidelines which follow are based upon current opinions (1982) of the Judicial Council.

Press Relations

The physician may not discuss the patient's health conditions with the press or the public without the patient's consent or, in the event of his incapacity, the family's consent.

A patient or his lawful representative may authorize a physician to disclose certain health information to the press. However, a physician may release only authorized information or that which is public knowledge.

Communications Media: Professional Responsibility

Because certain news is part of the public record or is a matter of concern to civil authorities, it is readily available for publication. Physicians should cooperate with the press to insure that medical news of this sort is available more promptly and accurately than would be possible without their assistance. News in this category, known as news in the public domain, includes births, deaths, accidents and police cases. The following information in the public domain can be made available *without* the patient's consent:

1. Personal information: patient's name, address, age, sex, race, marital status, employer, occupation, name of parents in case of births, name of next-of-kin in case of deaths.

Special note: Be aware of I.C. 16-1-19-3, which contains these restrictions on disclosure of vital statistics birth data:

- Disclosure of birth out of wedlock or of information from which it can be ascertained may be made only upon order of a court or the judge thereof.
- The state registrar shall permit inspection of the records or issue a certified copy of a certificate or part thereof if he is satisfied that the applicant has a direct interest in the matter recorded and that the information is necessary for the determination of personal or property rights. His decision shall be subject, however, to review by the board of a court under the limitations of this section.

2. Nature of accident: Only general information regarding injuries will be released. This consists of the name of the injured portion of the body, such as back injury and the like. It may be stated that there are internal injuries. If the patient is unconscious when brought to the hospital, that may be stated. Statements regarding the circumstances surrounding shootings, knifings and poisonings are police matters, and questions whether they were accidental or otherwise should be referred to appropriate authorities. A statement may be made that the patient was injured by a knife or other sharp instrument, but no statement may be made as to whether or not it was an assault, accident or self-inflicted.

A statement may be made that the patient received burns and the member of the body affected may be indicated.

No statement may be made that there was a suicide or attempted suicide.

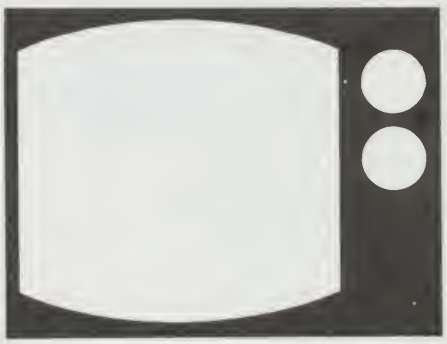
No statement may be made to the effect that intoxication, drug addiction or moral turpitude was involved.

Mutual Obligations

Within the limits of their mutual capabilities and responsibilities, physicians and news media have a joint interest in working together to see that the news is reported accurately and promptly. When information concerning a specific patient is requested, the physician must obtain the consent of his patient or his authorized representative before releasing such knowledge. The patient's decision is final under the law. Physicians are legally and ethically required to protect the personal privacy and other legal rights of the patient. With these obligations in mind, the physician may assist representatives of the media in every way possible.

The media, too, have ethical obligations as the Society of Professional Journalists stipulates in its Code of Ethics: "FAIR PLAY: Journalists at all times will show respect for the dignity, privacy, rights and well-being of people encountered in the course of gathering and presenting the news."

Physicians and the News Media



Getting health and medical information and news stories to the public with promptness and accuracy requires a harmonious relationship between the medical and news professions. This productive working relationship can only exist in an atmosphere of mutual trust. Unfortunately, the trust is not always there.

It's often easy to write off the media as biased against organized medicine and physicians. It's easy to assume that any efforts to deal with the media are doomed from the beginning. But such attitudes are not only largely mistaken, they're self-defeating.

Bias, in the sense of a predisposition toward a particular opinion or outlook, does exist among reporters—as it does among all human beings, physicians included. No one can ever be perfectly objective, but reporters, by the ideals of their profession, must do their best to make the effort. Often, the process of getting rid of bias and prejudices may begin as simply as establishing personal contact with a reporter, opening a dialogue and clearly and completely supplying the facts. Open communication can do much to eliminate mistaken opinions on both sides.

Remember, too, that criticism is one of the historic and vital functions of a free press. By providing a vehicle for criticism, the media help keep democracy alive. We can't expect the press to confine their criticisms to only those things we ourselves would criticize. What we can expect is that the media try to be fair and accurate in reporting the facts, that they correct errors when notified of them, and that they give those who disagree an opportunity to be heard or read.

Apart from the ideal circumstances of cooperation and objectivity, physicians should be aware of day-to-day realities in dealing with the media.

Turning a profit is a major objective. The print and broadcast media are businesses in constant competition to attract enough of a public to draw advertisers. They want to sell.

They want stories that "grab" the public. The media feel an obligation as public services to inform and enlighten their communities. But they also must focus on stories with popular appeal.

Rigid deadlines can be a handicap. When a hard news story must, to be timely and competitive, appear in the next edition of a newspaper or news program, the rigid deadline imposed can make in-depth research difficult, if not impossible. The more complex the story, the more difficult the task, particularly when the story deals with medical or health facts which are unfamiliar or confusing to the reporter.

Medical news competes with other news. Newspaper space and news air time on radio or television is strictly limited. Within those limitations editorial decisions must be made about which stories and features to use and how much space or time to allot them. A major medical news story may lose out to reports of a tornado or political scandal while a minor health-care story may appear replaceable by many other stories with what, in the editor's judgment, is a more "saleable" story.

NOTE: The ISMA PR Department has prepared a set of guidelines for physicians which define the different types of media interview (press, electronic, feature, hard news, and so on) and which give helpful information on handling interviews. For a copy of these guidelines, write the PR Dept. at ISMA headquarters. At this year's annual convention a media workshop for "hands-on" experience will also be available to interested physicians. Look for notification of time and place in forthcoming convention materials.



AUXILIARY REPORT

Karen (Mrs. Robert M.) Schleinkofer
President, ISMA Auxiliary

Auxiliary Activities Slated During ISMA's Annual Convention

Each year fall brings us crisp, cool days, the changing colors of leaves, the start of the football season—and the ISMA Annual Convention.

The convention will take place at the Holiday Inn North, Indianapolis, October 15-18. We think you'll find it's a delightful change of scene with beautiful facilities including some fabulous restaurants in the hotel and nearby, and the Holidome, a central skylighted courtyard that's the "heart" of the hotel.

While you're involved in meetings, your spouse will be able to participate in a number of planned activities. In fact, you're invited, too! Our meeting and luncheon, held on Friday which is Auxiliary Day, is open to all.

An outline of our program is contained in the boxed column below. Take a look at it, then please don't forget to take it home to your spouse!

Friday, October 15	AUXILIARY DAY AT THE ISMA
10:00 a.m. - 11:30 a.m.	Executive Board meeting in the ISMA Suite.
12:30 p.m. - 2:30 p.m.	Lunch and short business meeting followed by an unusual and entertaining style show of "Fashions Through the Years".
	$12.00 per person
Saturday, October 16	WHAT YOU'VE ALWAYS WANTED TO KNOW ABOUT INDIANAPOLIS AND DIDN'T KNOW HOW TO FIND OUT . . .
12:00 p.m. - 2:00 p.m.	IMPAC LUNCHEON
2:00 p.m. - 4:30 p.m.	A professionally narrated tour, by bus, of historic and modern Indianapolis, to include the historic structures as well as the new world acclaimed sports facilities.
	Visit also the beautifully restored Morris Butler Home, a treasure trove of Victoriana. The home, built in 1864, has been renovated to recreate the rich ambience of Victorian life at its most opulent. Desserts will be served in these lovely surroundings. Cost of the tour, the visit to the home and the dessert—$8.00 per person.
	Evening: On your own. Entertainment available includes "Sound of Music" dinner and show next door to the hotel at the Beef and Boards Dinner Theatre.
Sunday, October 17	A DAY TO RELAX AND REVIVE
9:00 a.m. - 11:00 a.m.	Attend the church of your choice.
11:30 a.m.	Depart the hotel for Brunch at James Tavern. A more bountiful brunch you could not hope for. If your desire is for eggs, sausage, cheese souffle, waffles, or if you wish roast beef, tacos, fish and vegetables, you may take your choice or have any and all you desire. Everyone ends up at the beautiful dessert buffet. (Cost is $10.00 per person.)
2:00 p.m. - 3:00 p.m.	"Laugh and the World Will Laugh with You" as you enjoy the message brought to us by the wife of one of our physicians, Mrs. William Ellis. She will entertain you and make you a bit nostalgic and pensive as she shares with you her message "Life a la Carte". This program will be in the ISMA Suite. Complimentary refreshments will be served.
6:00 p.m.	Fifty Year Club Reception.
6:30 p.m.	President's Dinner and Dance

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FUTURE FILE

Emergency Aid Course

"Early Care of the Critically Injured" will be covered by a course designed for practicing surgeons and emergency physicians at the St. Francis Hotel, San Francisco, Dec. 1 to 3. The sponsors are the College of Surgeons Trauma Committee for Northern California and the Surgery Services of two of the campuses of the University of California. The fee is $295. Registration is limited to 300.

Address Robert Wm. Steele, P.O. Box 40128, San Francisco 94140.

Family Practice Seminar

The annual Family Practice Seminar of St. Mary's Medical Center in Evansville will meet on Thursday, Nov. 4. The theme will be "Advances in Cardiology." Write or call Dr. W. Thomas Spain, 3700 Washington Ave., Evansville 47750, (812) 479-4468.

San Diego Scientific Assembly

The Interstate Postgraduate Medical Association of North America will hold its 67th annual Scientific Assembly Nov. 1 to 4 at the Town and Country Hotel in San Diego, Calif. Major emphasis will be on gastroenterology, endocrinology, pain, cardiology, carcinoma of the breast and geriatrics. Also, new information on antibiotics, biofeedback, hypertension and dermatology. Accredited for 24 hours of Category 1 and four hours of Category 5 credit with the AMA. Program and registration materials are available from IPMANA, P.O. Box 1109, Madison, Wisc. 53701.

Indiana University CME

September 22—Urology for the Primary Care Physician—Kokomo

September 29, 30—Care of the Seriously Ill Child—Atkinson Hotel

October 1, 2—Rhinoplasty—McCormick's Creek State Park

October 2—Orthopaedics for the Primary Care Physician—LaPorte

October 6—Dermatology for the Primary Care Physician—Kokomo

October 14—Pharmacology Update—Reid Memorial Hospital, Richmond

ACP Regional Meeting

The American College of Physicians regional continuing medical education meeting for Indiana will be held Oct. 29 and 30 at the Sheraton West Hotel, Indianapolis. Members of ISMA are all invited to attend. There is no fee for the scientific program. For further information, write or call Dr. Walter J. Daly, 4543 Manning Road, Indianapolis 46223—Phone (317) 264-8438. Early registration is encouraged.

Endocrine Seminar

"The Adrenal Cortex" will be the main theme of Part III of The Endocrine Seminar to be held at St. Mary's Medical Center in Evansville on Thursday, Oct. 21. Write or call Dr. Thomas Spain, 3700 Washington Ave., Evansville 47750, (812) 479-4468.

Advances in Therapeutics

"Therapeutics 1982" is the subject of a two-day CME course to be held at Madison, Wisc., Nov. 13 and 14. The subject matter is oriented to physicians and nurses interested in latest advances in therapeutics. Credit applied for—9 hours. The fee is $145 for M.D.s and $100 for others. Write or phone Sarah Aslakson, 465B WARF Bldg., 610 Walnut St., Madison, Wisc. 53706, (608) 263-2856.

Workers Compensation

"Medical Determinations in Workers Compensation," a two-day conference sponsored by the American Society of Law & Medicine, will be conducted Oct. 22-23 at the Franklin Plaza Hotel, Philadelphia.

For more information on the program, designed for lawyers and for physicians who examine, evaluate or treat patients seeking compensation, contact the ASLM, 765 Commonwealth Ave., 16th Floor, Boston 02215.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Richter Lectureship



J. Willis Hurst, M.D., chairman of medicine at Emory University School of Medicine and nationally known cardiologist, will be the guest lecturer for the Seventh Annual Arthur B. Richter Lectureship in Clinical Cardiology at St. Vincent Hospital and Health Care Center, Indianapolis, on Wednesday, Oct. 6.

Following the presentation, which will begin at 8:30 a.m. in the St. Vincent auditorium, Dr. Hurst will discuss clinical cases. There is no fee for the lecture. A luncheon and dinner will be part of the day's clinical program. Reservations for the meals may be obtained by calling St. Vincent Medical Affairs at 317-871-2172.

Evolution in Cancer Care

"Evolution in Cancer Care: A Multidisciplinary Approach" will be the topic discussed at the Fifth Annual Topics in Medical Oncology on Nov. 16 at Highlands Baptist Hospital, Louisville. The fee, which covers lunch, breaks, and educational hand-outs, is $25. The program is directed to nurses, social workers, chaplains, ministers and others who work with cancer patients and their families. The evening session will be directed to physicians. Write Barbara Janes at the hospital, 810 Barrett Ave., Louisville 40204, or call (502) 561-3432.

Child Passenger Safety

"Back to School" for Safety is the theme of a Sept. 18 statewide conference to be held at the Indiana Convention and Exposition Center, Indianapolis. It is sponsored by the Indiana Academy of Pediatrics, the Indiana Association of Women Highway Safety Leaders, the Indiana Child Passenger Safety Association and the Indiana State Board of Health in cooperation with the Indiana Department of Highways, Traffic Safety Division.

For further information, call 317-630-4807.

Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	DORIDEN	DOXIDAN
Category:	Sedative & Hypnotic	Laxative
Brand name:	Doriden, USV	Doxidan, Hoechst-Roussel
Generic name:	Glutethimide	Docusate sod. -Danthron combination
Dosage forms:	Tablets, Capsules	Capsules

	DILANTIN	DELTALIN
Category:	Anticonvulsant	Vitamin
Brand name:	Dilantin, Parke-Davis	Deltalin, Lilly
Generic name:	Phenytoin	Oleovitamin D
Dosage forms:	Tablets, injection, Oral suspension	Capsules

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BOOK REVIEWS

Facing the Hospital Manpower Crisis

Copyright 1982, American Hospital Association. Proceedings of a forum Nov. 6-7, 1980, Chicago. Available as catalog # AHA-088163, AHA, P.O. Box 69003, Chicago 60693. 98 pages, softcover. $10 prepaid for AHA members, $12.50 prepaid for non-members.

The forum was conducted in the usual modern style of speakers, (the main body of this "book"), and so-called "workshops" each with its "facilitator" and recorder. There were five workshops at the forum (Appendix A), and five summaries appear (in Appendix B).

Attempt was made to divide what is viewed as another "crisis" of the 1980s into categories of 1) the hospital as employer, 2) the hospital employee, 3) education and training, 4) unions, and 5) legislation and regulations. As is noted in the AHA's own comments, the various "workshops" did not hew to the line of their category, resulting in overlapping and repetition. However, this adds to rather than detracts from the forum's value.

This entire work is—or should be—of great interest to all doctors who work in hospitals. Doctors are a part of the picture (indeed, the greater part) but are not viewed by the AHA in the same light as they, the physicians, view themselves. Therefore, we should take heed to what is being thought, said, and done about us. There are acute minds at work in this field, although at times their luster is somewhat dimmed by educational or sociological jargon and occasional bureaucratic type of gobbledygook.

There is one all important and fundamental blunder exhibited all through the forum as well as by the American Hospital Association itself, and that is to speak consistently of the "hospital industry" and the entire subject of management of "human resources" is addressed throughout as if hospitals really do comprise an industry. This is also frequently extended to cover the entire "health care industry." Hospitals originally were (and still are) a place providing *doctors* with an environment more suited to caring for patients than is the patient's own home. *Now* the hospital (especially the AHA) seems to feel it is the doctor's place to make himself suit the hospital, as in the following quotation (from page 15):

"Although power is an innate right of the organization, it is not really a necessary attribute of the professional. When power is self-appointed in an accumulative sense, administration and its key executive players experience the frustrations of not being able to withdraw into the safety of organizational and managerial logic."

My remarks are not intended to denigrate the quality of this 1980 forum, but to alert members of the ISMA to what is being said about them and planned *for* them. Another quote will illustrate (from page 20) . . . . "Hospitals must withdraw from the rigidities they have about jobs and specialization and move toward enriching job content, enlarging the scope of jobs, and giving employees more control over their own work."

Here has been overlooked the difference between medical "work" and any other kind of work. Even "the boss," the doctor, has to comply with strict technique in treating illness. He must tread carefully in trying any deviation from established medical protocol. How can he then give his helpers a free rein?

Throughout this forum much emphasis is laid on the hospital's *professional* content, service and atmosphere, yet in the next breath it is dubbed an industry. The hospital is not in any sense an industry—it manufactures nothing, sells nothing, and does not engage in trade. It does supply a *service*, namely, health care in cooperation with physicians and nurses. Without physicians the hospital has nothing to offer. Thus it is inextricably aligned with and dependent upon professional people rather than upon business men. The hospital is a provider of service, not of a product; it is not an industry.

To me, the most pregnant portions of the forum are found in the lectures on training and education and on unions. There are many angles to these subjects that must be addressed and the only solution will require some form of cooperation. Recommendations were made as to training, but none as to unionization (pp 90-91).

It seems that the most complicated problems (for administrators) arise from legislation and regulation. For a quick review of this see pp. 91-92.

Helpful hint: If you do procure this book, skip the introduction until you finish the body of the work. No one from Indiana was on the program or listed as attending.

A. W. Cavins, M.D.
Terre Haute
Gynecology

Prentice-Hall announces *The Complete Professional Corporation Desk Book* by Harry V. Lamon, Jr. and J. Alston Thompson, Jr., two experienced attorneys. It is written to provide recommendations for professional advisors who are counseling professional corporations. The book is a practical reference aid rather than a treatise. It covers all the major areas of corporate and tax law involved in establishment and operation of professional corporations. 754 pages, $49.95.

Prentice-Hall has just published *Medical Practice Management Desk Book*, written by business consultant Charles H. Walsh and medical journalist Dr. Morton Walker. It combines the methods of business and the ethics of professionalism as an art. It contains cautions, pitfalls to avoid, checklists and model letters. 208 pages, $39.50.

Doubleday has released *Childstress!* by Mary Susan Miller. It is prefaced by Dr. Hans Selye and is devoted to "understanding and answering stress signals of infants, children and teenagers." Ms. Miller has worked for 20 years with children and teenagers as a teacher, principal and counselor, both in schools and in a prison. The book has achieved good reviews. $14.95.

Doubleday has released *Pain Control: The Bethesda Program* by Bruce Smoller, M.D. and Brian Schulman, M.D. The "Program" teaches the patient techniques by which to reduce and control pain. Also offers specific exercises. The book discusses links between pain and personality and between pain and family environment. $15.95.

The Classics of Vascular Surgery

Edited by Charles G. Rib. Copyright 1981, Apollo Press, Medford. 273 pages, with illustrations, $49.95.

"Only two genuinely new ideas have been introduced into arterial surgery since 1945, and in each case the idea was produced by a resident and not by a chairman, a professor, or an established surgeon." These ideas were Fogarty's embolectomy catheter and Voorhee's cloth arterial grafts. As this book discloses, most of the concepts that have led to our present golden age of arterial surgery originated prior to World War I.

Eck first proved that blood vessels could be successfully anastamosed 105 years ago in Pavlov's laboratory. Modern vascular surgical techniques began in 1899 and were improved by Carrel in 1912. The first clinical arterial embolectomy was done in 1911, while the first vein graft to restore arterial flow and the first thrombo-endarterectomy were both performed in 1906.

Unlike other classics-in-medicine series, many illustrations in this edition are poorly and cheaply reproduced—a fact that will irritate true bibliophiles. "English only" readers might be annoyed to find that one fourth of the articles appear in *la langue francaise.* From the proper historical perspective, however, *c'est normal!*

This book successfully transmits most of the great leaps in vascular surgical history. The development of arteriography is well represented, as is carotid endarterectomy, sympathectomy, aneurysm surgery, and arterial revascularization. Most innovator authors appreciate the importance of their work and are able to describe their achievements concisely and accurately. Reading these "originals" will thus stimulate all vascular surgeons and future innovators.

Alan T. Marty, M.D.
Evansville
Cardio-Vascular Surgery

Clinical Aspects of Immunology, 4th Edition

P. J. Lachman and D. K. Peters, editors. Copyright 1982, Blackwell Scientific Publications, Oxford, England. 1,751 pages.

This comprehensive work, published in two volumes, covers about all you want to know in the fields of allergy and immunolgy. The majority of contributors to the various sections are from England and America, with a few from France, Holland and Switzerland.

Volume I deals chiefly with immunologic mechanisms which have both good and bad effects on the host. Newest knowledge of the behavior of T and B cells is presented and the ability to recognize the various types of T and B cells and manipulate them to some extent is explored. The various mechanisms by which antibodies and immune complexes produce tissue damage are presented, as well as methods by which immune reactions may be potentiated or suppressed. For those confused about the interpretation of immuno-electropheresis and the other commonly used clinical tests for immune disease, this section offers considerable clarification.

The *second volume* deals chiefly with the clinical disorders in which immune mechanisms play a major role—such as auto-allergic blood diseases; hemolytic disease of the newborn; immunologic kidney, lung, gastro-intestinal and CNS disease. The immunology of connective tissue and endocrine diseases as well as of tumors, receives major attention. An extensive section on the immunity of infections completes Volume II.

There is probably no field of medicine in which new facts and concepts are proliferating more rapidly than in immunology. This new 1982 fourth edition of a classic comprehensive text from England, no doubt, gathers together the important old and new knowledge in this field as completely as any text now available.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine



What people don't realize is that I also have 37 mothers-in-law!

Prentice-Hall announces the third edition of *Incorporating the Professional Practice.* New possibilities provided by the Economic Recovery Tax Act of 1981 are discussed. There is a detailed item-by-item comparison of corporate plans with HR 10 Plans as to contributions, distributions, vesting, eligibility, integration, loans, life insurance and forfeitures. 264 pages, $39.95.

The Hinckley verdict is discussed by Dr. Richard Restak, noted neurologist, in *The Self Seekers: Understanding Manipulators, the Predominant Personalities of our Age.* Restak characterizes Hinckley as a narcissist. He proposes the view that Hinckley is neither wholly sane nor wholly insane. He believes it is a personality type nurtured by our present society. $17.95.

NEWS NOTES

National Health Program Grant

The Metropolitan Life Insurance Company, through its Foundation, has awarded a grant of $45,560 to the American College of Physicians to support development of a work plan for a health promotion program for the American public.

Dr. Robert H. Moser, ACP executive vice-president, explained, "Using our chapter network to involve individual internists in public education about the capabilities and limitations of medicine is our goal."

Cardiology Fellowship Awards

Adult Cardiology Fellowship Training Awards are announced by the American College of Cardiology and the Merck Company Foundation. Applications for the five awards should be filed before Jan. 1, 1983. Each one-year fellowship provides a $15,000 stipend, and runs from July 1983 through June 1984. Applicants must be in their first or second year of adult cardiology fellowship training.

Cost Containment Project

The W. K. Kellogg Foundation is providing grant funds to American College of Emergency Physicians for a three-year cost containment project. In an effort to lower patient costs, a task force of emergency physicians, nurses, and hospital administrators of 23 hospitals in eight states will gather data on the frequency and cost of all laboratory and x-ray tests ordered in the emergency department. After the data are analyzed, about 40 high-cost, high-frequency tests will be targeted for cost containment. None of the participating hospitals is in Indiana.

Wisconsin Wants 0.00%BAC

The State Medical Society of Wisconsin, through its House of Delegates, has resolved that the allowable alcohol content in blood of an automobile driver be lowered to 0.00%. The action followed the introduction of five resolutions, all of which urged adoption of the principle.

Drug Use Education

"Drug Use Education Tips" (D.U.E.T.) is the new patient education program of the American Academy of Family Physicians. It is a joint project with the U.S. Pharmacopeial Convention.

D.U.E.T. is designed to help family physicians inform their patients on the effects of drugs prescribed for them. This is done through use of *Advice for the Patient,* a book abstracted from the 1983 *USP Dispensing Information.* The information includes proper use, storage, side effects, precautions and interactions.

USP permits prescribers and dispensers to photocopy pages to give to patients. Each book includes a poster for physicians' offices encouraging patients to "ask about your medicines."

Indiana's Dietitian-Diabetes Referral Network

There is now a way for your patients with diabetes to have continuity of nutritional care with the help of a Registered Dietitian, but without the necessity of being admitted to the hospital.

The Indiana Dietetic Association and the Diabetes Research and Training Center have identified dietitians with a special interest and expertise in diabetic nutritional education. A list of such dietitians is available for referral by physicians from the phone numbers listed below. The existence of this referral network should help the physicians in:

- Outpatient diet motivation and advice that could encourage the person to reach weight goals and maintain acceptable levels of blood glucose control.
- Diet modifications that may be needed because of lifestyle or activity changes, or because of concurrent medical situations (pregnancy, hypertension, etc.).

For names of Registered Dietitians in your county area who accept referrals, or for further information, contact Beth Gatto (IDA, (317) 924-8919), Madelyn Wheeler (DRTC, (317) 630-6215), or one of the five American Diabetes Association regional offices in Indiana:

Central: Indianapolis (317) 356-7208
No. Central: Anderson (317) 378-0555
North East: Ft. Wayne (219) 482-9426
North West: Hobart (219) 769-3650
South West: Terre Haute (812) 232-0361

CME Quiz . . .

CONTINUED FROM PAGE 631

a. nicotinic agonist
b. muscarinic antagonist
c. $beta_2$ antagonist
d. $beta_1$ agonist

8. A nonselective alpha adrenergic antagonist will interfere with which of the following effects of norepinephrine?
a. vasoconstrictor effect.
b. negative feedback effect on norephinephrine release.
c. a and b.
d. cardioacceleration.

9. Up-regulation of beta adrenergic receptors during chronic beta blocker therapy may cause:
a. rebound hypertensive crises.
b. subsensitivity to catecholamines.
c. blockade of alpha adrenergic receptors.
d. blockade of $beta_1$ adrenergic receptors.

10. Stimulation of presynaptic alpha adrenergic receptors causes:
a. outpouring of norepinephrine.
b. inhibition of norepinephrine release.
c. a selective $beta_1$ adrenergic effect.
d. a spreading of nicotinic cholinergic receptors.

Preparations for Aging Veterans

The Veterans Administration estimates that, by 1990, two of every three American men over age 65 will be veterans. And also, by the year 2000, the current population of veterans over age 65 will have increased from just over 3 million to nearly 8 million.

The situation in Canada is similar. Officials from both countries have been consulting on the need for special preparations for geriatric care on a large scale. Medical and other officers of the Canadian system have been studying the U.S. state-of-the-art in geriatrics.

The VA Medical Center at Martinsburg, W.V. has been selected as an example of both acute and extended veteran care. Experience is that patients in the over-65 bracket need more physician time, more hospital admissions and longer hospital stays.



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NEWS NOTES

Here and There . . .

. . . **Donald F. Foy,** ISMA executive director, has been presented a Certificate of Commendation by the Indiana Academy of Family Physicians; the certificate is awarded to non-physicians who have contributed to the advancement of family medicine in Indiana.

. . . **Dr. Warren V. Morris** of Monticello has been appointed to the four-member White County Memorial Hospital Board of Trustees.

. . . **Dr. John F. Lawler** of Evansville was the guest speaker at the July meeting of Welborn Baptist Hospital's Gastric Bypass Club.

. . . **Dr. Glenn C. Lord** has assumed duties as vice-president of the Greater Indianapolis Council on Alcoholism.

. . . **Dr. Richard G. Huber** of Bedford, vice-president of the Indiana Division, American Cancer Society, spoke at the annual meetings of the Jefferson, Greene and Lawrence County units on "Why Did I Ever Say Yes?"

. . . **Dr. Walter P. Beaver** has been elected president of the medical staff at Riverview Hospital, Noblesville, succeeding **Dr. Thomas A. Mabel; Dr. Sheldon J. Friedman** was elected vice-president, and **Dr. David J. Dwyer,** secretary-treasurer.

. . . **Dr. Indra K. Somani** of Merrillville discussed various aspects of cancer during a Cancer Awareness Seminar held in Merrillville in July.

. . . **Dr. Kenneth Gammon** of Elkhart discussed chest x-rays and lung disease during the July meeting of the Elkhart Chronic Obstructive Pulmonary Education (COPE) Club.

. . . **Dr. Virginia M. Wagner** of Indianapolis has been elected governor of the Midwestern Region of Soroptimist International of the Americas.

. . . **Dr. Robert L. Gregory** of Indianapolis has been named "Physician of the Year" by Community Hospital, which credited him for having taught more senior medical students and residents than any other preceptor at the hospital.

. . . **Dr. Heun Y. Yung** of Indianapolis has been elected to fellowship in the American College of Radiology.

. . . **David L. Wesche,** a member of the Senior Class at Indiana University School of Medicine, has received a grant of $4,130 from the National Fund for Medical Education to prepare a pharmacopoeia of West African folk medicines.

. . . **Dr. Shahid Athar** of Indianapolis has been elected to fellowship in the American College of International Physicians.

. . . **Dr. Thomas A. Bowers** of South Bend has been named an associate member of the American College of Radiology.

. . . **Dr. Steven C. Meyer** of Fort Wayne was guest speaker for the recently held annual meeting of the Huntington County Cancer Society.

. . . **Dr. Steven M. Herf** of Evansville has been elected to Fellowship in the American College of Physicians.

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SP Proposes Label Warnings

The United States Pharmacopeial onvention is proposing label warnings or "Bacteriostatic Sodium Chloride njection" and "Bacteriostatic Water for njection" to include the statement, NOT FOR USE IN NEWBORNS." he reason is that benzyl alcohol, which s the antimicrobial agent in these prodicts, is harmless for adults but toxic for eonates. A few deaths have been reported. No problems have been noted with use in older children or adults.

nvestigator Award Deadline

Applications for the 1983 Young Investigators' Awards must be submitted to the American College of Cardiology by Nov. 1. The program is open to any physician or scientist who is presently in a residency or fellowship training program or who has been in such a program within the past three years, and to medical students and Ph.D. candidates.

Support for the awards is provided as a Professional Education Grant of Searle Laboratories. Any problem related to cardiology or circulation can be considered. The problem may be in basic sciences, biophysics, chemistry, radiology, surgery or clinical medicine. For details, write the College at 9111 Old Georgetown Road, Bethesda, Md. 20814.



THE AMA'S FIFTY YEAR CLUB is in good hands and growing under the leadership of Indiana physicians. Dr. Lester D. Bibler of Indianapolis (center) is the immediate past president. Dr. Harold C. Ochsner of Indianapolis and Naples, Fla. (right) is the incoming president. With them is the current president, Dr. Leon McGoogan of Omaha, Neb.

1983 *USP-DI* Now Available

USP Dispensing Information (USP DI), 1983 edition, is in two volumes. Volume I, "Drug Information for the Health Care Provider," is written for the health professional. Volume II, "Advice for the Patient," is a lay-language version of the first volume. The *USP DI* has acquired a world-wide reputation for accuracy, reliability and dependability since it first appeared. The AMA has selected it as the data base for the Patient Medication Instruction sheets. The Canadian Pharmaceutical Association uses USP monographs as the base for their "Supplemental Information on Medicines" program. A Japanese publisher translated *USP DI* for a Japanese edition. Spanish translations are in the making.

The two-volume set in a durable soft cover is priced at $37.95. Additional copies of Volume II, "Advice for the Patient," are available for $17.95. The address is 1983 *USP DI*, 12601 Twinbrook Parkway, Rockville, Md. 20852.



"I'll have to cut your appointment short — my divorce hearing comes up in an hour."

'English Pronunciation' for FMGs

"English Pronunciation" is the subject of an intensive one-day seminar to be conducted by the AMA for foreign medical graduates. The time is 9 a.m. to 5 p.m. on Oct. 16. The fees are $96 for AMA members and $144 for nonmembers. An optional feature is a text and audio cassettes for $60. Attendance is limited. Write to AMA Department of Physician's Credentials, 535 N. Dearborn, Chicago 60610, or phone (312) 751-6570.

The Church Lives the Scriptures

Reflections of a Family Physician

PAUL SIEBENMORGAN, M.D.
Terre Haute

AS A FAMILY PHYSICIAN of nearly 40 years, I have spent a lifetime in healing and in protecting the health of the members of those families that have come under my care. In fact, everyone—not only physicians—is called upon at some time to help those in need of health care. We have tried to give them medically the best quality of life possible with which to live.

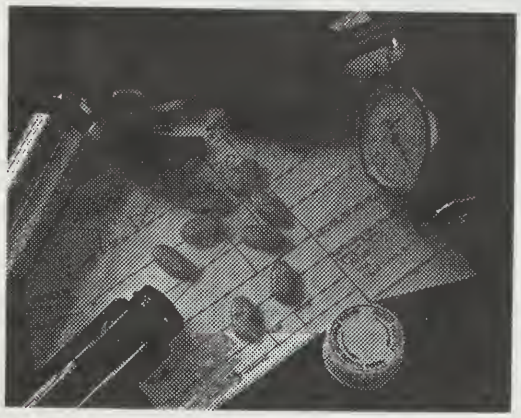
Reprinted from the Church Bulletin, Central Christian Church, Terre Haute, Ind.

Yet we all know that healing the body is only temporary for eventually this body, "pots of earthenware" (II Corinthians 4:7), will break, decay and pass away. Our outer nature is inevitably aging and wasting away.

The imperative is that, as we Christians meet with others, sick or not, we do all within our power to aid in the enhancement of that real and eternal treasure in each individual toward the end that, though the outer nature is wasting away, the inner nature is being renewed until the Spirit, when freed from its earthen vessel, can soar to its new "house, not made by human hands, eternal and in heaven."

The imperative is that we, the Church, live the scriptures, speaking out, as Paul says, through our belief and faith. Lest some Christians feel they are exempt from this imperative, I remind them that some of the most beautiful testimonies I have ever witnessed have come from those who were bedridden.

GOOD NEWS FOR DOCTORS



If you want a busy practice with no office overhead and little paperwork, then consider becoming a member of the Air Force health care team. You'll find medicine can be a great way of life in the Air Force. We can restore much of the satisfaction to your medical practice because we emphasize patient care instead of paperwork. We even provide professional liability protection under the Federal Tort Claims Act at no cost to you. And your income won't stop should you decide to take your family on vacation. We give you 30 days of vacation with pay each year.

We'd like to tell you more — like how our excellent compensation plan applies to you and your opportunities for specialization. Contact your nearest Air Force medical recruiter for more good news. We'll answer your questions promptly and without obligation.

Call Lt. Ted Pantaleo at 317-269-6354 Collect.

AIR FORCE
A great way of life.

CONVENTION SECTION

133rd Annual Convention
Indiana State Medical Association
October 15-18, 1982
Holiday Inn-North—Indianapolis

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*Traditionally, this portion of the September issue has contained somewhat more detail than you will find this year. In an effort to reduce production costs, certain duplications are being avoided.

Everything required by the ISMA Bylaws appears in the *Delegates Handbook (all* convention participants will be given one this year) and in the December issue, which traditionally features the post-convention wrap-up.

So if you are looking for any of the following items, you will find them at the convention, either in the *Delegates Handbook* or in special handouts that will be available there:

- Complete schedule of events;
- Roster, House of Delegates;
- Reports of officers, commissions and committees;
- Reports not received in time to meet printing deadlines for this issue of THE JOURNAL;
- Pictures of guest speakers, ISMA alternate trustees and AMA delegates.

Official Call to the House of Delegates

The next annual session of the Indiana State Medical Association will be held at the Holiday Inn-North, Indianapolis, Indiana, Oct. 15, 16, 17 and 18, 1982.

The House of Delegates will be constituted as follows:

Marion County 27 delegates; Lake County 12 delegates; Vanderburgh County 8 delegates; Allen County 7 delegates; St. Joseph County 6 delegates; Delaware-Blackford and Tippecanoe County Societies each 4 delegates; Bartholomew-Brown, Owen-Monroe, Vigo and Wayne-Union Societies, each 3 delegates.

Daviess-Martin, Dearborn-Ohio, Elkhart, Fayette-Franklin, Fountain-Warren, Grant, Harrison-Crawford, Howard, Jefferson-Switzerland, LaPorte, Madison, Parke-Vermillion and Porter County Societies each 2 delegates; the other 57 county societies, each 1 delegate.

14 trustees and the ex-presidents—namely, M.C. Topping, Kenneth L. Olson, Guy A. Owsley, Maurice E. Glock, Donald E. Wood, Joseph M. Black, Eugene S. Rifner, Patrick J. V. Corcoran, Lowell H. Steen, Malcolm O. Scamahorn, Peter R. Petrich, James H. Gosman, Joe Dukes, Gilbert M. Wilhelmus, Vincent J. Santare, John W. Beeler, Eli Goodman, Arvine G. Popplewell and Alvin J. Haley. The Student Council, I. U. School of Medicine, 1 delegate. The delegate or designated alternate delegate elected by respective section shall also be a member without power to vote.

The following shall be ex officio members: the president, president-elect, executive director, treasurer, assistant treasurer, speaker, vice-speaker and delegates to the American Medical Association, all without power to vote, except in the case of a tie vote, when the speaker shall cast the deciding vote.

All delegates must present their credentials card certified by their county medical society before being seated as a delegate. No delegate will be seated without proper certification.

The House of Delegates will convene promptly at 7 p.m., EST, Friday Oct. 15, in the Holiday Inn—North, Indianapolis. The final meeting of the House of Delegates will convene at 9 a.m., Monday, Oct. 18, in the Holiday Inn—North.

The order of business will be as follows:

1. Call to order by the speaker.
2. Invocation.
3. Roll call and seating of qualified delegates.
4. Announcements from the chair.
5. Tribute to members of the Indiana State Medical Association who have died since the 1981 session.
6. Reading of minutes of previous meetings.
7. Introduction of guests.
8. Journalism Awards.
9. President's address
10. President-elect's address.
11. Appointment of Reference Committees and assignment of meeting rooms.
12. Unfinished business.
13. Report of president of the ISMA Auxiliary.
14. Report of the Student Council of the Indiana University School of Medicine.
15. Report of executive director.
16. Report of treasurer.
17. Report of chairman of the Board.
18. Report of trustees.
19. Report of THE JOURNAL editor.
20. Report of AMA delegates.
21. Report of chairman of the Board of the Indiana Physicians Life Insurance Company (IPLIC).
22. Report of chairman of the Board of the Physicians Insurance Company of Indiana (PICI).
23. Report on I-MEDIC.
24. Reports of committees and commissions:

Committees:

(1) Executive
(2) Grievance
(3) Future Planning
(4) Medico-Legal
(5) Negotiations
(6) Medical Education Fund

Commissions:

(1) Constitution and Bylaws
(2) Convention Arrangements
(3) Legislation
(4) Public Relations
(5) Medical Education
(6) Medical Services
(7) Physician Impairment

25. Reading of communications.
26. Reading of memorials (if any).
27. Report from the speaker.
28. New Business:
    (1) Matters referred by Board of Trustees.
    (2) Matters referred by Executive Committee.
    (3) Resolutions.
29. Selection of city for 1987 meeting:
    1983—Evansville—Oct. 15-19
    1984—Indianapolis—Oct. 19-22
    1985—South Bend—Oct. 11-14
    1986—Indianapolis—Oct. 10-13

The election of officers will be the first order of business at the final meeting of the House of Delegates. In addition to the regular officers, the terms of the following AMA delegates and alternates expire Dec. 31, 1982, and their successors must be elected at the session: Delegates to the American Medical Association to succeed George T. Lukemeyer, Indianapolis, Malcolm O. Scamahorn, Pittsboro, and Everett E. Bickers, Floyds Knobs; alternate delegates to succeed Robert M. Seibel, Nashville, Lloyd L. Hill, Peru, and Gilbert M. Wilhelmus, Evansville.

Delegates from the Third, Sixth, Ninth and Twelfth Districts are reminded that the terms of their trustees will expire Oct. 18, 1982, and new trustees should be elected to succeed the following:

Third:	Richard G. Huber, Bedford
Sixth:	Davis W. Ellis, Rushville
Ninth:	Max N. Hoffman, Covington
Twelfth:	Michael O. Mellinger, LaGrange

Some of these elections may already have been held but they should be reported to the House of Delegates at this session for confirmation.

Donald F. Foy
Executive Director

Reference Committees

REFERENCE COMMITTEE NO. 1:
Reports of Officers

Max N. Hoffman, M.D., Covington, Chairman
(Fountain County—District 9) FP
Willaim C. Van Ness, II, M.D., Alexandria, Co-Chairman
(Madison County—District 8) FP
Robert D. Dodd, M.D., South Bend
(St. Joseph County—District 13) FP
James L. Peters, M.D., Shelbyville
(Shelby County—District 6) FP
Eric V. Shulz, M.D., Bedford
(Lawrence County—District 3) FP
William H. Jones, M.D., Martinsville
(Morgan County—District 7) OBG

REFERENCE COMMITTEE NO. 2:
Constitution and Bylaws

Frank M. Sturdevant, M.D., Valparaiso, Chairman
(Porter County—District 10) OBG
William F. Kerrigan, M.D., Connersville, Co-Chairman
(Fayette County—District 6) AN
William L. Strecker, M.D., Terre Haute
(Vigo County—District 5) AN
Garry L. Bolinger, M.D., Indianapolis
(Marion County—District 7) PTH
Laurence K. Musselman, M.D., Marion
(Grant County—District 11) P
Forrest F. Radcliff, M.D., Evansville
(Vanderburgh County—District 1) ORS

REFERENCE COMMITTEE NO. 3:
Legislative

Fred W. Dahling, M.D., New Haven, Chairman
(Allen County—District 12) FP
Donald J. Kerner, M.D., Indianapolis, Co-Chairman
(Marion County—District 7) FP
George N. Lewis, M.D., Bloomington
(Monroe County—District 2) IM
Willard S. Krabill, M.D., Goshen
(Elkhart County—District 13) PH
Larry G. Cole, M.D., Yorktown
(Delaware County—District 8) FP
Barbara J. Bourland, M.D., West Lafayette
(Tippecanoe County—District 9) PD

REFERENCE COMMITTEE NO. 4:
Medical Education and Insurance

Alfred C. Cox, M.D., South Bend, Chairman
(St. Joseph County—District 13) FP
George M. Underwood, M.D., Lafayette, Co-Chairman
(Tippecanoe County—District 9) FP
A. Alan Fischer, M.D., Indianapolis
(Marion County—District 7) FP
Donald Dean Cofield, M.D., Bloomington
(Monroe County—District 2) OPH
Charles W. Hachmeister, M.D., Evansville
(Vanderburgh County—District 1) FP
Mary E. Carroll, M.D., Crown Point
(Lake County—District 10) FP

REFERENCE COMMITTEE NO. 5:
Miscellaneous

John C. Lowe, M.D., Indianapolis, Chairman
(Marion County—District 7) GE
Thomas A. Felger, M.D., Fort Wayne, Co-Chairman
(Allen County—District 12) FP
William E. Cooper, M.D., Columbus
(Bartholomew-Brown County—District 4) OTO
C. Stanley Manship, M.D., Hardinsburg
(Washington County—District 3) FP
Russell J. Dukes, M.D., Bloomington
(Monroe County—District 2) TS
Gordon Hughes, M.S., Indianapolis
(Student Council—IUSM)

REFERENCE COMMITTEE NO. 6:
AMA Matters

Gilbert M. Wilhelmus, M.D., Evansville, Chairman
(Vanderburgh County—District 1) FP
Charles D. Egnatz, M.D., Schererville, Co-Chairman
(Lake County—District 10) FP
Marvin E. Priddy, M.D., Fort Wayne
(Allen County—District 12) FP
Richard L. Glendening, M.D., Logansport
(Cass County—District 11) FP
Russell L. Judd, M.D., Indianapolis
(Marion County—District 7) U
Gordon S. Fessler, M.D., Rising Sun
(Ohio County—District 4) FP

CREDENTIALS COMMITTEE:
G. Beach Gattman, M.D., chairman
Robert Brown, M.D.
Ray Burnikle, M.D.
Adrian Lanning, M.D.

CHIEF TELLER:
Barbara Backer, M.D.

THE INDIANA STATE MEDICAL ASSOCIATION
1982 Annual Meeting—Oct. 15-18, Indianapolis

OFFICIALS FOR 1981-1982

President—Martin J. O'Neill, 301 Washington St., Valparaiso 46383
President-elect—John A. Knote, 2400 South St., Lafayette 47904
Treasurer—Douglas H. White, 3524 N. Meridian, Indianapolis 46208
Assistant Treasurer—George H. Rawls, 3151 N. Illinois St., Indianapolis 46208
Executive Director—Mr. Donald F. Foy

Executive Committee—Herbert C. Khalouf, Chairman; Alvin J. Haley, Martin J. O'Neill, Paul Siebenmorgen, John A. Knote, Douglas H. White, George H. Rawls, Jack M. Walker.

Speaker of the House—Lawrence E. Allen, 2009 Brown St., Anderson 46016

Vice Speaker—Shirley T. Khalouf, 1204 Overlook Dr., Marion 46952

TRUSTEES

District	Term Expires
1—John A. Bizal, Evansville	Oct. 1983
2—Ralph W. Stewart, Vincennes	Oct. 1984
3—Richard G. Huber, Bedford	Oct. 1982
4—Mark M. Bevers, Seymour	Oct. 1983
5—Paul Siebenmorgen, Terre Houte (Choirman)	Oct. 1984
6—Dovis W. Ellis, Rushville	Oct. 1982
7—Donold C. McCollum, Indionopolis	Oct. 1983
7—H. Marsholl Trusler, Indionapolis	Oct. 1984
8—Richard L. Reedy, Yorktown	Oct. 1984
9—Max N. Hoffman, Covington	Oct. 1982
10—Chorles D. Egnatz, Shererville	Oct. 1983
11—Herbert C. Kholouf, Morion	Oct. 1984
12—Michael O. Mellinger, LoGronge	Oct. 1982
13—Donald S. Chamberlain, South Bend	Oct. 1983

ALTERNATES

District	Term Expires
1—E. DeVerre Gourieux, Evansville	Oct. 1982
2—Paul J. Wenzler, Bloomington	Oct. 1983
3—Eli Hallol, New Albony	Oct. 1983
4—Williom E. Cooper, Columbus	Oct. 1982
5—Benny Ko, Terre Houte	Oct. 1982
6—Clorence G. Clorkson, Richmond	Oct. 1983
7—John D. MocDougoll, Beech Grove	Oct. 1982
7—Garry Bolinger, Indianapolis	Oct. 1982
8—Williom C. VanNess II, Alexandrio	Oct. 1982
9—Lowell R. Stephens, Covington	Oct. 1983
10—Wolfred A. Nelson, Gory	Oct. 1982
11—Edword L. Langston, Flora	Oct. 1983
12—Thomas A. Felger, Fort Wayne	Oct. 1983
13—John W. Luce, Michigon City	Oct. 1982

SECTION OFFICERS

Section on Surgery
Chairman—Pierre J. Fisher, Marion
Secretary—Ted W. Grisell, Indianapolis

Section on Internal Medicine
President—Jomes A. Cossody, Indionopolis
Secy-Treasurer—William Bostnagel, Indpls.

Section on Family Practice
Choirman—Williom C. Spence, Knightstown
Secretory—

Section on Neurological Surgery
President—Daniel F. Cooper, Indianapolis
Secy-Treosurer—Morvin R. Bernord, Merrillville

Section on Otolaryngology, Head & Neck Surgery
President—Richord Kurtz, Indionopolis
Secy-Treasurer—Richard T. Miyamoto, Indpls.

Section on Anesthesiology
President—Wendoll L. Edwards, Indionopolis
Secretory—Steven R. Young, Indionopolis

Section on Public Health and Preventive Medicine
Chairmon—Frank H. Green, Rushville
Secretory—Joseph D. Richardson, Rochester

Section on Radiology
Choirmon—Gerold J. Kurlonder, Indianapolis
Secretory—Robert W. Holden, Plainfield

Section on Nervous and Mental Diseases
Choirman—Nancy C. A. Roeske, Indpls.
Secretory—Judith Compbell, Indionopolis

Section on Pathology and Forensic Medicine
President—Jack G. Weinbaum, Terre Haute
Secretory—Gorry L. Bolinger, Indionopolis

Section on Pediatrics
Chairmon—Robert M. Sweeney, South Bend
Secretary—Stephen Bosh, Fort Wayne

Section on Directors of Medical Education
Choirmon—Robert D. Robinson, Indionopolis
Secretory—Glenn D. Baird, Evonsville

Section on Cutaneous Medicine
Choirmon—Robert M. Hurwitz, Indionopolis
Secy-Treasurer—Larry J. Buckel, Beech Grove

Section on Allergy
Choirman—Poul D. Isenberg, Indpls.
Secy—Beauford Spencer, Bloomington

Section on Urology
President—Neole A. Moosey, Indionopolis
Secretory—John D. Thorp, Muncie

Section on Orthopedic Surgery
President—Charles B. Emery, Jr., Bloomington
Secy-Treosurer—George F. Ropp, Indpls.

Section on Emergency Medicine
Chairman—John C. Johnson, Evonsville
Secretory—Ester Schubert, New Costle

Section on Ophthalmology
Chairman—Doniel R. Evons, Volporaiso
Secretory—Lee H. Trochtenberg, Munster

Section on Nuclear Medicine
President—Ronald I. Veatch, Indianapolis
Secy-Treosurer—Miguel B. Dizon, Indpls.

DELEGATES TO THE AMA

Terms expire December 31, 1982:
Delegates: George T. Lukemeyer, Indionopolis; Molcolm O. Scomahorn, Pittsboro; Everett E. Bickers, Floyds Knobs.
Alternates: Robert M. Seibel, Nashville; Lloyd L. Hill, Peru; Gilbert M. Wilhelmus, Evansville.

Terms expire December 31, 1983:
Delegates: Morvin E. Priddy, Fort Woyne; Peter R. Petrich, Attico; Thomos C. Tyrrell, Calumet City.
Alternates: Arvine G. Popplewell, Indianapolis; G. Beoch Gottmon, Elkhort; Vincent J. Sontare, Munster.

DISTRICT MEDICAL SOCIETY OFFICERS

District	President	Secretary	Place, Date of Meeting
1.	Steven K. Elliott, Evonsville	Donold R. Elder, Poseyville	
2.	Frederick H. Buehl, Vincennes	Walter R. Voughn, Vincennes	
3.	Eli Goodmon, Chorlestown	Peter H. Livingston, Bedford	
4.	Henry W. Conrod, Lowrenceburg	Leslie M. Boker, Auroro	
5.	Thomas F. Orman, Terre Haute	Peggy Sonkey Swaim, Rockville	
6.	Robert J. Warren, Richmond	Robert W. Kuhn, Willkinson	
7.	Warren L. Groy, Martinsville	M. O. Scomohorn, Pittsboro	
8.	Carol R. Chambers, Union City	Suson K. Pyle, Union City	
9.	Lowell R. Stephens, Covington	Theodore C. Person, Veedersburg	
10.	Lee H. Trochtenberg, Munster	Barron M. F. Polmer, Hommond	Sept. 22, 1982
11.	Edword L. Longston, Floro	Fred Poehler, Wobash	Sept. 15, 1982
12.	Linus J. Minick, Churubusco	A. B. Donesa, Fort Wayne	Sept. 16, 1982, Fort Woyne
13.	Donold L. Weninger, Michigon City	G. Richard Green, South Bend	Sept. 8, 1982, Michigon City

THE INDIANA STATE MEDICAL ASSOCIATION

Committees 1981-1982

NEGOTIATIONS

Herbert C. Khalouf, Marion, chairman
John W. Beeler, Indianapolis
Leonard W. Neal, Munster
Donald C. McCallum, Indianapolis
Alvin J. Haley, Carmel

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John W. Beeler, Indianapolis, chairman
Donald E. Wood, Indianapolis
Joe E. Dukes, Dugger
Jack M. Lockhart, Connersville
Eli Goodman, Charlestown
Nicholas L. Polite, Whiting

GRIEVANCE

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William G. Bannon, Terre Haute
George T. Lukemeyer, Indianapolis
Jack W. Higgins, Kokomo

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Stanley M. Chernish, Indianapolis
E. Henry Lamkin, Indianapolis
Eli Goodman, Charlestown
R. Wyatt Weaver, Angola

MEDICO-LEGAL

John W. Beeler, Indianapolis, chairman

Commissions 1981-1982

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Dist. 1—Forrest F. Radcliff, Evansville
Dist. 2—George N. Lewis, Bloomington
Dist. 3—Donald M. Kerr, Bedford
Dist. 4—John D. Lipson, Columbus
Dist. 5—Warren L. Macy, Greencastle
Dist. 6—James E. Swander, Richmond
Dist. 7—Loren H. Martin, Indianapolis
Dist. 7—Lester H. Hoyt, Indianapolis
Dist. 8—John D. Jones, Anderson
Dist. 9—Gilbert Gutwein, Lafayette
Dist. 10—Frank M. Sturdevant, Valparaiso
Dist. 11—Lloyd L. Hill, Peru
Dist. 12—George C. Manning, Fort Wayne
Dist. 13—Steven H. Yoder, Syracuse
At large—Robert H. Brown, Marion

LEGISLATION

Paul J. Wenzler, Bloomington, chairman
Dist. 1—Bryant A. Bloss, Evansville
Dist. 2—Paul J. Wenzler, Bloomington
Dist. 3—Peter H. Livingston, Bedford
Dist. 4—Edward L. Probst, Columbus
Dist. 5—Douglas E. Ott, Terre Haute
Dist. 6—Robert E. Gould, New Castle
Dist. 7—Arvine G. Popplewell, Indianapolis
Dist. 7—William M. Dugan, Indianapolis
Dist. 8—Jack M. Walker, Muncie
Dist. 9—Ben H. Park, Lebanon
Dist. 10—William J. Fitzpatrick, Munster
Dist. 11—Tom R. Scherschel, Kokomo
Dist. 12—Fred W. Dahling, New Haven
Dist. 13—David W. Haines, Warsaw
At large—Edward L. Langston, Flora
At large—Wilbert Washington, Indianapolis

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Dist. 1—Larry W. Sims, Evansville
Dist. 2—Donald L. Snider, Vincennes
Dist. 3—Cesar S. Archangel, Jeffersonville
Dist. 4—Harold W. Richmond, Columbus
Dist. 5—Joseph H. Selliken, Terre Haute
Dist. 6—Clarence G. Clarkson, Richmond
Dist. 7—Thomas E. Lunsford, Indianapolis
Dist. 7—Richard W. Campbell, Indianapolis
Dist. 8—Thomas M. Brown, Muncie
Dist. 9—Wallace R. VanDenBosch, Lafayette
Dist. 10—Felix Millan, Munster
Dist. 11—Laurence K. Musselman, Marion
Dist. 12—Herbert P. Trier, Fort Wayne
Dist. 13—Bryce B. Rohrer, Walkerton
At large—Larry M. Davis, Indianapolis
At large—Harold G. Nichols, Indianapolis

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John V. Osborne, Muncie, chairman
Dist. 1—Glenn D. Baird, Evansville
Dist. 2—James P. Beck, Washington
Dist. 3—Richard E. Riehl, Jeffersonville
Dist. 4—Vacant
Dist. 5—Gregory N. Larkin, Greencastle
Dist. 6—Vacant
Dist. 7—George H. Rawls, Indianapolis
Dist. 7—Randolph W. Lievertz, Indianapolis
Dist. 8—John V. Osborne, Muncie
Dist. 9—R. Adrian Lanning, Noblesville
Dist. 10—Larry A. DeRenne, Dyer
Dist. 11—Richard L. Glendening, Logansport
Dist. 12—Edwin E. Stumpf, New Haven
Dist. 13—David L. Dunlap, South Bend
At large—Ross L. Egger, Daleville

MEDICAL SERVICES

John D. MacDougall, Indianapolis, chairman
Dist. 1—L. Ray Stewart, Evansville
Dist. 2—Thomas M. Turner, Vincennes
Dist. 3—Wallace D. Johnson, Bedford
Dist. 4—Frank L. Frable, Lawrenceburg
Dist. 5—Ludimere Lenyo, Terre Haute
Dist. 6—Joseph L. Steinem, Connersville
Dist. 7—John D. MacDougall, Indianapolis
Dist. 7—James R. Cumming, Indianapolis
Dist. 8—John D. Tharp, Muncie
Dist. 9—Carl B. Howland, Crawfordsville
Dist. 10—Creighton M. Rawlings, Munster
Dist. 11—Regino B. Urgena, Marion
Dist. 12—Charles H. Aust, Fort Wayne
Dist. 13—Alfred C. Cox, South Bend
At large—Hugh K. Thatcher, Indianapolis
At large—Dwight W. Schuster, Indianapolis

CONVENTION ARRANGEMENTS

Garry L. Bolinger, Indianapolis, chairman
Dist. 1—Albert S. Ritz, Evansville
Dist. 2—Steven I. Lewallen, Bloomington
Dist. 3—Everett E. Bickers, Floyds Knobs
Dist. 4—John Hossler, Madison
Dist. 5—J. Franklin Swaim, Rockville
Dist. 6—James A. Johnson, Richmond
Dist. 7—Leo J. McCarthy, Indianapolis
Dist. 7—Bernard J. Emkes, Indianapolis
Dist. 8—Arthur C. Jay, Parker
Dist. 9—Barbara J. Bourland, Lafayette
Dist. 10—Nicholas L. Polite, Whiting
Dist. 11—Jack W. Higgins, Kokomo
Dist. 12—Vacant
Dist. 13—John O. Hildebrand, South Bend
At large—Stanley M. Chernish, Indianapolis
At large—Garry L. Bolinger, Indianapolis
At large—Glenn Bingle, Indianapolis

MEDICAL EDUCATION

Steven C. Beering, Indianapolis, chairman
Dist. 1—Wallace M. Adye, Evansville
Dist. 2—Harold M. Manifold, Bloomington
Dist. 3—Eli Hallal, New Albany
Dist. 4—Brockton L. Weisenberger, Columbus
Dist. 5—James R. Buechler, Terre Haute
Dist. 6—James R. Lewis, Richmond
Dist. 7—Glenn J. Bingle, Indianapolis
Dist. 7—Hunter A. Soper, Indianapolis
Dist. 8—R. Kelly Chambers, Anderson
Dist. 9—Stephen D. Tharp, Frankfort
Dist. 10—Alexander A. Stemer, Munster
Dist. 11—Vacant
Dist. 12—Franklin A. Bryan, Fort Wayne
Dist. 13—Vacant
At large—Steven C. Beering, Indianapolis
At large—Shokri Radpour, Kokomo
At large—Wallace S. Tirman, Mishawaka
At large—Eugene M. Gillum, Portland

Subcommission on Accreditation

Indiana Academy of Family Physicians:
Eugene M. Gillum, Indpls, chairman
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James J. McCallum, Indianapolis
Indiana Academy of Otolaryngology:
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Indiana Orthopaedic Society:
Raymond O. Pierce, Indianapolis
Indiana OB-GYN Society
William D. Ragan, Indianapolis
Indiana Psychiatric Society:
Alan D. Schmetzer, Indianapolis
Indiana Roentgen Society:
Heun Y. Yune, Indianapolis
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Indiana Thoracic Society:
R. S. Dunkin, Indianapolis
Indiana State Urological Society:
James E. Lingeman, Indianapolis
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Vacant
American Board of Med. Specialties:
Vacant
Indiana Society of Internal Medicine:
James E. Cassady, Indianapolis
Indiana Society of Anesthesiologists:
Barry M. Glazer, Zionsville
Indiana Hospital Association:
Glenn J. Bingle, Indianapolis
Medical Education Commission:
Steven C. Beering, Indianapolis
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Shokri Radpour, Kokomo

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Pike	Danald L. Hall, Petersburg	
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Putnam	Jase T. Vieira, Coatesville	Robert A. Heavin, Gen. Delivery, Coatesville 46121
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Rush	Harry G. McKee, Rushville	Douglas Morrell, 606 E. 11th St., Rushville 46173
St. Joseph	George A. Horvath, South Bend	James L. Grainger, 707 N. Michigan St., #101, Sauth Bend 46601
		Mrs. Rose Vance, Exec. Dir., 2015 Western Ave., South Bend 46629
Scatt	Marvin L. McClain, Scottsburg	Wm. M. Scott, Medical Arts Bldg., Highway 31 North, Scottsburg 47170
Shelby	James L. Peters, Shelbyville	Dauglas S. Carter, I-74 & St. Rd. 9, Box 474G, Shelbyville 46176
Spencer	John C. Glackman Jr., Rockport	Michael O. Monar, 6rh & Main, Rockport 47635
Starke	Robert J. Goode, Knox	Walter Fritz, 1520 S. Heaton St., Knox 46534
Steuben	R. Wyatt Weaver, Angola	Dean L. Mattax, Box 210, LaGrange 46761
Sullivan	John R. Taylor, Palestine	Jae Dukes, Sauth Third St., Dugger 47848
Tippecanoe	Patrick R. O'Neil, Lafayette	Paula Meluch, c/o 2323 Ferry St., Lafayette 47904
Tipton	Clarence M. Cobb, Tipton	Terrence J. Ihnat, 1800 N. "B" St., Elwood 46036
Vanderburgh	Jahn D. Pulcini, Evansville	Mrs. Carolyn Scruggs, Exec. Dir., 421 N. Main St., Evansville 47711
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		William L. Purcell, Exec. Dir., P.O. Box 986, Terre Haute 47801
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Warrick	William G. West, Jr., Newburgh	C. P. Ramaswamy, P.O. Box 275, Newburgh 47630
Washingtan	Flor T. Castueras, Salem	Donald L. Martin, 304 E. Market St., Salem 47167
Wayne-Unian	George S. Porter, Richmond	James E. Szymanawski, 900 Sim Hodgin Parkway, Richmond 47374
Wells	Lauis F. Bradley, Blufftan	James E. Umphrey, 303 S. Main St., Bluffton 46714
White	Max L. Fields, Manticello	W. Martin Dickerson, 1114 O'Connor Blvd., Monticello 47960
Whitley	John L. Vogel, Columbia City	Claude J. Heritier, 700 Hill Dr., Columbia City 46725

PRESIDENTS OF ISMA SINCE ITS ORGANIZATION

Medical Convention	Elected	Served
*Livingston Dunlap, Indianapolis	1849	1849
Medical Society		
*William T. S. Carnett, Versailles	1849	1850
*Ashahel Clapp, New Albany	1850	1851
*Gearge W. Mears, Indianapalis	1851	1852
*Jeremiah H. Brower, Lawrenceburg	1852	1853
*Elizur H. Deming, Lafayette	1853	1854
*Madison J. Bray, Evansville	1854	1855
*William Lamax, Marion	1855	1856
*Daniel Meeker, LaPorte	1856	1857
*Talbat Bullard, Indianapalis	1857	1858
*Nathan Johnson, Cambridge City	1858	1859
*David Hutchinsan, Mooresville	1859	1860
*Benjamin S. Waodworth, Ft. Wayne	1860	1861
*Theophilus Parvin, Indianapalis	1861	1862
*James F. Hibberd, Richmand	1862	1863
*Jahn Sloan, New Albany	1863	....
*Jahn Maffett (acting), Rushville	1863	1864
*Samuel L. Linton, Columbus	1864	....
*Wilsan Lackhart (acting), Danville	1864	1865
*Myran H. Harding, Lawrenceburg	1865	1866
*Vierling Kersey, Richmand	1866	1867
*John S. Babbs, Indianapalis	1867	1868
*Nathaniel Field, Jeffersanville	1868	1869
*George Sutton, Aurora	1869	1870
*Robert N. Tadd, Indianapolis	1870	1871
*Henry P. Ayres, Ft. Wayne	1871	1872
*Joel Penningtan, Miltan	1872	1873
*Isaac Casselberry, Evansville	1873	....
*Wilsan Habbs (acting), Knightstown	1873	1874
*Richard E. Houghton, Richmond	1874	1875
*Jahn H. Helm, Peru	1875	1876
*Samuel S. Bayd, Dublin	1876	1877
*Luther D. Waterman, Indianapalis	1877	1878
*Lauis Humphreys, South Bend	1878	....
*Benj. Newland (acting), Bedford (v.p.)	1878	1879
*Jacab R. Weist, Richmond	1879	1880
*Thomas B. Harvey, Indianapalis	1880	1881
*Marshall Sextan, Rushville	1881	1882
*William H. Bell, Logansport	1882	1883
*Samuel E.•Mumford, Princetan	1883	1884
*James H. Woodburn, Indianapolis	1884	1885
*James S. Gregg, Ft. Wayne	1885	1886
*General W. H. Kemper, Muncie	1886	1887
*Samuel H. Charlton, Seymaur	1887	1888
*William H. Wishard, Indianapalis	1888	1889
*James D. Gatch, Lawrenceburg	1889	1890
*Gansalva C. Smythe, Greencastle	1890	1891
*Edwin Walker, Evansville	1891	1892
*Gearge F. Beasley, Lafayette	1892	1893
*Charles A. Daugherty, Sauth Bend	1893	1894
*Elijah S. Elder, Indianapalis	1894	....
*Charles S. Band (acting), Richmond	1894	1895
*Miles F. Parter, Ft. Wayne	1895	1896
*James H. Ford, Wabash	1896	1897
*William N. Wishard, Indianapalis	1897	1898
*John C. Sextan, Rushville	1898	1899
*Walker Schell, Terre Haute	1899	1900
*George W. McCaskey, Ft. Wayne	1900	1901
*Alembert W. Brayton, Indianapolis	1901	1902
*Jahn B. Berteling, South Bend	1902	1903
*Jonas Stewart, Andersan	1903	1904
*George T. MacCay, Calumbus	1904	1905
*Gearge H. Grant, Richmond	1905	1906
*Gearge J. Cook, Indianapalis	1906	1907
*David C. Peyton, Jeffersanville	1907	1908
*George D. Kahla, French Lick	1908	1909
*Thamas C. Kennedy, Shelbyville	1909	1910
*Frederick C. Heath, Indianapalis	1910	1911
*William F. Howat, Hammand	1911	1912
*A. C. Kimberlin, Indianapalis	1912	1913
*Jahn P. Salb, Jasper	1913	1914
*Frank B. Wynn, Indianapolis	1914	1915
*George F. Keiper, Lafayette	1915	1916
*John H. Oliver, Indianapolis	1916	1917
*Joseph Rilus Eastman, Indianapalis	1917	1918
*William H. Stemm, Narth Vernon	1918	1919
*Charles H. McCully, Loganspart	1919	1920
*David Rass, Indianapolis	1920	1921
*William R. Davidson, Evansville	1921	1922
*Charles H. Gaad, Huntingtan	1922	1923
*Samuel E. Earp, Indianapalis	1923	1924
*Eldridge M. Shanklin, Hammand	1924	1925
Medical Association		
*Charles N. Cambs, Terre Haute	1925	1926
*Frank W. Cregor, Indianapolis	1926	1927
*Gearge R. Daniels, Marian	1926	1928
*Charles E. Gillespie, Seymaur	1927	1929
*Angus C. McDanald, Warsaw	1928	1930
*Alais B. Graham, Indianapolis	1929	1931
*Franklin S. Crackett, Lafayette	1930	1932
*Joseph H. Weinstein, Terre Haute	1931	1933
*Everett E. Padgett, Indianapolis	1932	1934
*Walter J. Leach, New Albany	1933	1935
*Roscoe L. Sensenich, South Bend	1934	1936
*Edmund D. Clark, Indianapolis	1935	1937
*Herman M. Baker, Evansville	1936	1938
*Edmund M. Van Buskirk, Ft. Wayne	1937	1939
*Karl R. Ruddell, Indianapolis	1938	1940
*Albert M. Mitchell, Terre Haute	1939	1941
*Maynard A. Austin, Anderson	1940	1942
*Carl H. McCaskey, Indianapolis	1941	1943
*Jacab T. Oliphant, Farmerburg	1942	1944
*Nelson K. Forster, Hammond	1943	1945
*Jesse E. Ferrell, Fartville	1944	1946
*Flayd T. Ramberger, Lafayette	1945	1947
*Cleon A. Nafe, Indianapalis	1946	1948
*Augustus P. Hauss, New Albany	1947	1949
*C. S. Black, Warren	1948	1950
*Alfred Ellisan, Sauth Bend	1949	1951
*J. William Wright, Indianapalis	1950	1952
*Paul D. Crimm, Evansville	1951	1953
*Wm. Harry Howard, Hammand	1952	1954
*Walter L. Partteus, Franklin	1953	1955
*Walter U. Kennedy, New Castle	1954	1956
*Elton R. Clarke, Kakoma	1955	1957
M. C. Tapping, Terre Haute	1956	1958
Kenneth L. Olson, South Bend	1957	1959
*Earl W. Mericle, Indianapalis	1958	1960
Guy A. Owsley, Hartford City	1959	1961
*Harry R. Stimsan, Gary	1960	1962
Maurice E. Glack, Fart Wayne	1961	1963
Donald E. Wood, Indianapalis	1962	1964
Joseph M. Black, Seymaur	1963	1965
*Kenneth O. Neumann, Lafayette	1964	1966
Eugene S. Rifner, Van Buren	1965	1967
*G. O. Larsan, LaParte	1966	1968
Patrick J. V. Corcaran, Evansville	1967	1969
Lowell H. Steen, Hammand	1968	1970
Malcalm O. Scamahorn, Pittsbara	1969	1971
Peter R. Petrich, Attica	1970	1972
James H. Gasman, Indianapolis	1971	1973
Joe Dukes, Dugger	1972	1974
Gilbert M. Wilhelmus, Evansville	1973	1975
Vincent J. Santare, Munster	1974	1976
John W. Beeler, Indianapalis	1975	1977
Eli Goadman, Charlestown	1976	1978
*James A. Harshman, Kakama	1977	1978
Arvine G. Papplewell, Indianapalis	1978	1980
Alvin J. Haley, Carmel	1979	1981
Martin J. O'Neill, Valparaisa	1980	1982

*Deceased.



MARTIN J. O'NEILL, M.D.
President
Indiana State Medical Association
1981-1982



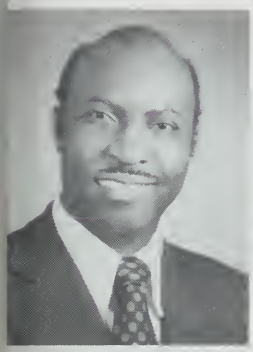
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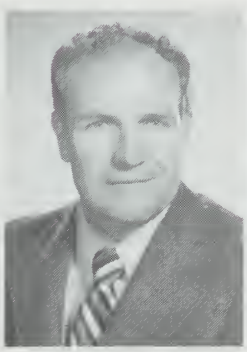
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Executive Committee
Muncie



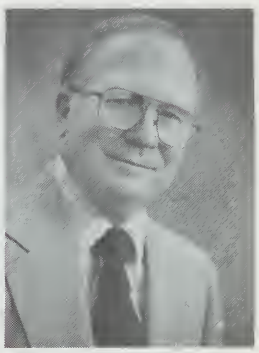
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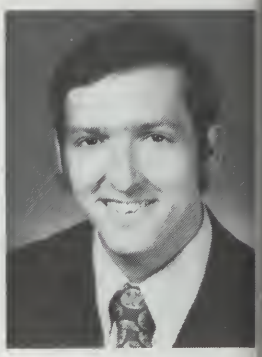
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Bedford
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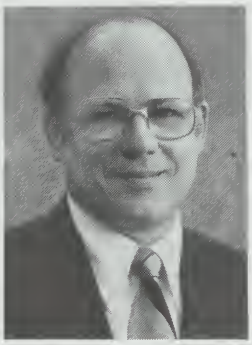
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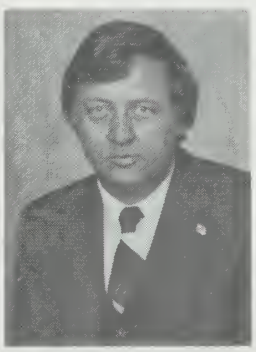
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Herbert C. Khalouf, M.D.
Marion
Eleventh District



Michael O. Mellinger, M.D.
LaGrange
Twelfth District



Donald S. Chamberlain M.D.
South Bend
Thirteenth District

Abridged Schedule of Events



GARRY L. BOLINGER, M.D.
INDIANAPOLIS
Chairman
Convention Arrangements

133rd Annual Convention
Holiday Inn-North
Indianapolis

FRIDAY, October 15
EST

8:30 a.m. ....Registration Opens
11:30 a.m. ...Board of Trustees Luncheon/Meeting
2 p.m. .....Committee on Rules and Order of Business
3-5 p.m. .....Medical Student Reception/Meeting
5:30 p.m. ....House of Delegates Buffet
7 p.m. .....First Session, House of Delegates

SATURDAY, October 16
EST

8 a.m.-Noon Reference Committee Meetings
9:30-12:15 ...General Scientific Meetings
10:30 a.m. ...Special Reference Committee (AMA Affairs)
Noon-1:30 ...Reference Committee Buffet
3-5 p.m. .....General Scientific Meetings
Noon-1:30 ...IMPAC Luncheon
Noon-1:30 ...Editorial Board Luncheon/Meeting
2-3 p.m. .....Reference Committee Signature Meeting
2-3 p.m. .....Physician Spokesperson Workshop
7-10 p.m. ....Board of Trustees Formal Dinner

SUNDAY, October 17
EST

7:30-9 a.m. ..Board of Trustees Breakfast Meeting
8:30 a.m. ....ISMA Section, Special Society Meetings
3-5 p.m. .....Small County Delegates Meeting
6 p.m. .....Fifty Year Club Reception
6:30 p.m. ....President's Reception
7:30 p.m. ....President's Dinner

MONDAY, October 18
EST

7:30-9 a.m. ..Board of Trustees Breakfast Meeting
9 a.m. .....Final Session, House of Delegates
2 p.m. .....Board of Trustees Organizational Meeting and Executive Committee Meeting

AUXILIARY PROGRAM

See "Auxiliary Report" on page 640.

Senator Lugar To Be Guest Speaker at IMPAC Luncheon



U.S. Senator Richard G. Lugar will be the guest speaker at the IMPAC luncheon, scheduled to begin at noon, Saturday, Oct. 16, during the annual convention.

Senator Lugar, an ardent jogger and physical fitness advocate who initiated a series of Health Festivals in Indiana, is an opponent of national health insurance, saying it is misguided and would be too costly.

The Senator, a native of Indianapolis, is a 1954 graduate of Denison University in Granville, Ohio. He was graduated first in his class and earned a Rhodes Scholarship.

Lugar, a veteran of the U.S. Navy, was elected Mayor of Indianapolis in 1967. Four years later he won nomination for an unprecedented second term as Mayor and was re-elected in a landslide.

During Senator Lugar's service as Mayor, building in Indianapolis boomed, jobs and homes were found for 8,000 new households each year, and the city was named The Healthiest Economy in the Nation by the Council on Municipal Performance. Crime, traffic deaths, pollution and unemployment were all reduced well below the national averages. City services were greatly expanded while local tax rates were cut five straight years. When he left office in 1976, Indianapolis had a balanced budget, a municipal bond rate of Aaa (the highest possible) and a $4.6 million surplus.

While he was Mayor, Lugar also served as vice chairman of the Advisory Commission on Intergovernmental Relations, as president of the National League of Cities, and in several other major national governmental assignments.

Lugar was elected to the United States Senate in November 1976, defeating R. Vance Hartke, a three-term Democratic incumbent. He thus became the first Republican in 20 years to win election to the Senate from Indiana.

In the Senate, Lugar serves on the Committee on Agriculture, Nutrition, and Forestry; the Committee on Banking, Housing, and Urban Affairs; the Committee on Foreign Relations; and the Select Committee on Intelligence.

He and his wife, the former Miss Charlene Smeltzer, are the parents of four sons.

Resolutions

Resolution 82-1

Introduced by: LaPorte County Medical Society
Subject: Number of Trustees Per District
Referred to: Reference Committee

Whereas, The number of Trustee Districts was drawn up to represent a geographic area, as the Senate; and

Whereas, The physician members of ISMA are numerically represented in the House of Delegates on a per capita basis; now, therefore be it

Resolved, That each Trustee District be represented by one Trustee.

Resolution 82-2

Introduced by: Commission on Constitution and Bylaws
Subject: Medical Defense
Referred to: Reference Committee

Whereas, Recent decisions of the Internal Revenue Service have indicated that ISMA's tax exempt status could be affected if it were to pay medical defense expenses for individual physicians pursuant to the present medical defense section of our Constitution and Bylaws; and

Whereas, The whole medical defense section of the Bylaws is confusing and unnecessarily lengthy and duplicitious; now, therefore be it

Resolved, That Section 13 of the ISMA Constitution and Bylaws dealing with medical defense be rewritten (as attached) to conform with IRS rulings and to reflect a more realistic approach to this problem.

13.00 MEDICAL DEFENSE—COUNTERSUITS—ADMINISTRATION, AUTHORITY AND PROCEDURES

13.01 Administration: The administration of this entire section shall be entrusted to the ISMA Executive Committee which shall have full authority to develop rules and procedures, and make reports as it may deem appropriate. Any matter not specifically addressed in this section shall be left to the discretion of the Executive Committee.

13.02 Policy and Purpose: It shall be the policy of ISMA that this section of the Bylaws shall only be used as authority to involve ISMA in medical defense and/or countersuit litigation that is of such a nature that the issues presented are of significant concern and impact on the practice of medicine as a whole. In no event shall this section be construed as authority or obligation for ISMA to involve itself in litigation that is primarily a matter of individual concern. This section shall not be construed as authority for ISMA to hire attorneys and pay expenses on behalf of an individual member. However, the Executive Committee is empowered to expend funds for attorneys and other experts who may be required in the pursuit of litigation that may have an impact on the practice of medicine as a whole.

13.03 Eligibility: Request for ISMA Involvement-Procedure
Before a request for ISMA involvement will be considered by the ISMA Executive Committee the following conditions should be met:

(a) The physician making the request should be a member in good standing of ISMA.

(b) A written request for ISMA involvement in medical defense and/or countersuit litigation should be sent to the Executive Committee detailing the facts of the case as well as why the issues involved are of such a nature that they impact on the practice of medicine as a whole.

(c) A written statement of support from the physician's county medical society should accompany the request for ISMA involvement.

THIS MAJOR REWRITE REPLACES CURRENT SECTION 13 AND ALL ITS SUBSECTIONS.

Resolution 82-3

Introduced by: Commission on Constitution and Bylaws
Subject: AMA Delegate Slotting
Referred to: Reference Committee

Whereas, It has been our general custom in the past to recognize expiring terms of specific delegates and/or alternate delegates; and

Whereas, It has been our custom and procedure in the past to receive nominations and conduct balloting for each specific position; now, therefore be it

Resolved, That the ISMA Constitution and Bylaws specifically provide for the nomination and election of each AMA delegate and/or alternate delegate's expiring term.

Resolution 82-4

Introduced by: Commission on Constitution and Bylaws
Subject: Report of Rules and Order of Business
Referred to Reference Committee

Resolved, That recommendations of the Committee on Rules and Order of Business shall be considered in the same manner as any other Reference Committee report except that rebuttal shall be limited to a single speaker representing the sponsor of any resolution recommended unfavorably for consideration, and this rebuttal shall likewise be limited to the appropriateness of consideration, and not the merits of the resolution itself.

Resolution 82-5

Introduced by: Northern Indiana Psychiatric Society
Subject: Rename Present ISMA Specialty Section
Referred to: Reference Committee

Whereas, The ISMA Specialty Section on Nervous and Mental Disorders today would more appropriately be addressed as Psychiatry; now, therefore be it

Resolved, That the ISMA Specialty Section on Nervous and Mental Disorders be renamed the Section on Psychiatry.

Resolution 82-6

Introduced by: ISMA Board of Trustees
Subject: Rescinding Resolution 62-26
Referred to: Reference Committee

Whereas, Resolution 26 was adopted by the ISMA House of Delegates in 1962 encouraging Blue Shield to market a prepaid indemnity type plan for medical care which plan will have no schedule of dollar allowance but will pay usual charges made by physicians in their areas in which our services are rendered; and

Whereas, The resulting program of "usual and customary and reasonable" (UCR) payments have resulted in many complaints over the years by physicians; and

Whereas, The ISMA no longer has any official relationship with Blue Shield; now, therefore be it

Resolved, That Resolution 62-26 adopted at a special meeting of ISMA House of Delegates be *rescinded;* and be it further

Resolved, That ISMA continue to oppose any third party payment program that delineates physicians by lists or assignment or payments or treats policyholders without uniformity.

Resolution 82-7

Introduced by: Marion County Medical Society
Subject: Endorsement of the American Medical Association Board of Trustees Report DD
Referred to: Reference Committee

Whereas, Should a thermonuclear holocaust take place in the United States, medical treatment of thermonuclear war victims would overwhelm remaining facilities and medical and health personnel; now, therefore be it

Resolved, That the Indiana State Medical Association endorse the American Medical Association Board of Trustees Report DD, which reads:

"Resolved, That the American Medical Association promote the provision of educational offerings to its membership which will inform them regarding the medical consequences of a thermonuclear incident and its appropriate medical management; and be it further

"Resolved, That the American Medical Association petition the leaders of this and other countries to find an effective means by which further development, testing and development of nuclear weapons can be halted and worldwide nuclear disarmament effected."

HOLIDAY INN INDIANAPOLIS NORTH

Holiday Inn North at the Pyramids is located on the southeast corner of the I-465/U.S. 421 Interchange. (Exit 27)



Report of the Executive Director

We are again pleased to report that ISMA's financial condition continues to be sound. As a result, we are projecting a balanced budget for fiscal year 1983 (beginning October 1, 1982) with no increase in dues. It will be eight years since ISMA dues were last increased—a period during which inflation ravaged the economy. The chief factor responsible for the Association's financial stability is the continued increase in its investment income. This has been enhanced by additional membership programs and activities of a revenue-generating nature.

It is important that the profession take heed of the concept that as Government does less, medicine must do more! The so-called "New Federalism" proposed by the Reagan Administration will have a profound impact on the practice of medicine and will be accompanied by many additional opportunities and challenges.

Physician Surplus—Make house calls? Schedule evening office hours? Take a job as a prison doctor? Work in an HMO for a salary? Join the military? Like them or not, these are some of the options physicians are likely to be pondering in the years just ahead, according to some observers, as the supply of physicians increases dramatically. Several years ago the Graduate Medical Education and National Advisory Committee (GMENAC) predicted a physician surplus by 1990, with many changes in medical practice as a result. Critics of the committee report may have impugned its credibility somewhat by attacking the methodology used in making projections. Nevertheless, some of the committee's predictions are already being felt in certain areas, even in Indiana.

At the same time, the number of other health care providers—nurse practitioners and clinicians, physicians' assistants, psychologists, optometrists, etc., to name only a few—are increasing even more rapidly. Competition will undoubtedly become more intense as these workers provide more and more services formerly offered only by physicians.

Rivalry between the general physician and the specialist will sharpen and neither will be prone to refer patients to the other unless absolutely necessary. Physicians can be expected to form more full-service partnerships, build more emergency clinics, primary care centers, and free-standing obstetric and surgical facilities to compete with hospitals.

The GMENAC Report also envisions growing pressure on hospitals to decrease the entry of alien physicians to their medical staffs, either for training or full privileges. This pressure will also be felt by U.S. citizens who are graduates of Mexican and Caribbean medical schools.

One of the major concerns of the GMENAC chairman, Dr. Alvin R. Tarlov, is that as the availability of services increases, people shift doctors more frequently. Patients often take it upon themselves to seek other opinions or duplicate services. Some patients are already using two or more doctors without telling one about the existence of the others. The biggest danger in all of this is that the traditional doctor-patient relationship, a covenant of confidence and trust, will be replaced by a legal, contractual relationship and yet, according to Dr. Tarlov, "This traditional relationship is the most effective way yet found to diagnose, treat and prevent disease." It is interesting to note that the Texas Medical Association has selected as one of its major priorities for 1982 and beyond that of identifying, developing and encouraging programs that will support and enhance the relationships between patients and physicians.

Rising Health Care Costs—Continues to be viewed as a major source of concern to government, industry, and third-party payers. The issue is a complex one with general inflation, improved technology, the growing ratio of elderly people and hence degenerative diseases and the greater availability of care due to increased insurance coverage—all sharing most of the blame.

Physicians constitute about 19% of the total cost of health care and yet we often receive most of the blame because it is said that we are responsible for 70% of the total cost of health care due to our control over utilization. What medicine's critics fail to recognize, however, is that while physicians do exercise some degree of control over utilization of services, they have little to do with the costs of those services. These costs are determined by others and particularly hospitals.

Indicative of the Indiana General Assembly's concern with increasing health care costs as an inhibitor to expanded economic growth is the formation of an Interim Legislative Study Committee on Health Care Costs. The committee will meet several times during the summer to hear testimony from various sources. The ISMA is monitoring these meetings closely, working closely with members of the committee, and will submit testimony of its own at one of the committee meetings. The committee is expected to submit its report to the General Assembly by Nov. 1, 1982.

The key to the new market-oriented strategy toward the health sector rests on a fundamental reform in the tax treatment of health insurance. As you know, under the tax law that has prevailed for several decades, an employer's contributions to the health insurance of an employee is not regarded as taxable income. The tax treatment has been the central obstacle to the emergence of a well-functioning market process in the health, and especially the hospital sector. Once this obstacle is removed, a healthy competition should emerge between fee-for-service insurance plans featuring patient cost sharing (via deductibles and coinsurance) and prepaid health maintenance organizations. Many believe that without government regulation, this competition alone may reduce the source of the inefficiency and cost inflation in the health care industry.

It is not surprising, then, that over the past several decades most of the population gradually has obtained complete first-dollar hospital insurance coverage that virtually has eliminated cost-sharing for hospital care. Today well over 90% of all hospital revenues from patient care comes from private or public insurers, and less than 10% from patients directly. Is it any wonder why patients complain about out-of-pocket expenses in connection with physician services and why physicians

re blamed by the public for escalating ealth care costs?

For years, physicians have carried the urden of an ill-conceived and mythical otion that they are paid excessively and re the culprits for the high cost of medcal care. In a very revealing study, Dr. Assad Meymandi, president-elect of the Cumberland County Medical Society of Lafetteville, N.C., took 18 randomly elected jobs listing the average wage in 950 and at the end of 1979. He then alculated the number of working hours eeded in each job category to purchase wo randomly chosen medical services n each year. Average fees for the two ervices, appendectomy and a regular hysician office visit, were: appendecomy, $75 in 1950 and $300 in late 979; regular office visit, $5 in 1950 nd $15 in late 1979. In every instance t took fewer hours of labor for any of he randomly selected jobs to purchase hese same medical services in 1979 han it did in 1950. Thus, when one ompares apples with apples and oringes with oranges, there is compelling vidence that the physician is not paid xcessively nor is he the culprit for the igh cost of medical care.

The market cannot promote efficiency vhen a key ingredient is absent. This ngredient is significant consumer costsharing. Without consumer cost-sharng, the inefficiency and inflation of the ealth sector would prevail in any other ector of our economy. In effect, 100% ospital insurance is a system of billsplitting. The individual's insurance remium reflects a national average ather than his own hopsital expenses; herefore, he has no incentive to be conerned about the amount of his own ospital bill because it will not affect is financial burden.

Coalitions—For the first time the right epresentatives are being asked to sit own at the conference table and acknowledge that many different parties—hysicians, hospitals, business, labor, anagement, insurers, patients—have legitimate stake in holding down the otal cost of medical care. There is recgnition that this is a joint obligation nd therefore will require a joint approach. This is why the AMA has joined vith five other national organizations, including the AFL-CIO, to call for the development of community coalitions to confront the cost problem.

In Indiana the ISMA and the five largest Fortune 500 companies homebased in Indiana have joined together to form the Indiana Business-Medicine Coalition. The coalition's primary function is to promote dialogue between business and medicine in order to identify problems and jointly explore solutions in the interest of promoting cost-effective medical care. Consistent with this purpose, it was agreed that the objective of the coalition would be twofold: 1) To elevate the general level of awareness among physicians of industry's problems; and 2) To develop the appropriate resources and resource materials to deal with these problems.

The first local pilot business-medicine coalition was formed in Columbus at the invitation of the county medical society. The coalition meets regularly and serves as a model for other locales to emulate.

Another business-medicine coalition was established recently in the Muncie area and is meeting regularly. Many positive activities and projects are under way which will have an impact on containing rising health care costs. Additional business-medicine coalitions are being developed in Terre Haute, Elkhart and Kokomo. The statewide Business-Medicine Coalition will invite local coalitions to meet with it periodically to exchange information, monitor progress and discuss projects.

The statewide Business-Medicine Coalition elected not to expand at this time to include additional corporations or provider groups until the coalition has developed more of a track record. The group feels that the addition of other corporations and organizations might tend to confuse the issues further and impede progress. Of course, local community coalitions are certainly free to include hospitals, the Chamber of Commerce, etc., if they so choose.

Ad Hoc Committee on Scientific Affairs—You may or may not be aware that the ISMA has no scientific committee or commission to deal with scientific matters. Nevertheless, the ISMA is frequently solicited for an opinion on a variety of scientific issues and developments. The ISMA should be in a position to be more responsive to such requests.

To remedy this problem, Dr. Martin O'Neill has appointed, with the Board of Trustees' approval, an important new committee—the ad hoc Committee on Scientific Affairs, which is composed of the chairman or president of each of ISMA's Specialty Sections. Such a committee should certainly be able to provide ISMA with broad input in terms of dealing with scientific issues. The committee will probably not meet more than two or three times a year since much of its business will lend itself to handling through correspondence and/or telephone conference calls. If the committee functions successfully, it is hoped that the House of Delegates may accord it permanent status.

Malpractice Advisory Committee—Another very important committee appointed by Dr. O'Neill, with the Board's concurrence, is the Malpractice Advisory Committee. Recognizing the malpractice issue to be the number one priority presently confronting organized medicine, the committee will function as an ongoing monitoring mechanism (in the absence of the Governor's Malpractice Study Commission) providing recommendations and appropriate input to governmental commissions, the legislature and the insurance commissioner. Ideally, this committee will provide direction to the formation of ISMA policy and strategy in the malpractice area.

The committee met earlier this year and received a preliminary report from ISMA's independent actuaries concerning the Patients' Compensation Fund. These actuaries from the firm of Shinnerer and Associates Inc. of Chicago were critical of an earlier study of the Patients' Compensation Fund conducted by J. Edward Faust Jr. at the direction of the 1981 Interim Malpractice Legislative Study Committee. Essentially, ISMA's actuaries do not believe that the data-base maintenance by the Insurance Department is sufficient or adequate to support sound projections about the Patients' Compensation Fund. Because Medical Pro-

tective, being by far the largest carrier in Indiana, should have the most complete data base, ISMA's Malpractice Advisory Committee recommended writing to the Medical Protective Company requesting certain types of information. To date ISMA has had no response from Medical Protective to its request.

Also, the Faust Study recommended an increase in the surcharge levied on each covered provider's malpractice insurance premium from 10% to 40%, effective Sept. 1, 1982. After discussions with the Insurance Commissioner, he became persuaded that a more modest increase in the surcharge might be quite adequate for the time being. Consequently, the commissioner actually made the recommendation to the 1981 Interim Legislative Malpractice Study Committee that the surcharge be increased to 25% and this was later adopted by the 1982 General Assembly.

Formation of Physicians Insurance Company of Indiana (PICI)—Even though availability of medical professional liability insurance is not currently a problem in Indiana, accountability of those companies which control this vital coverage for physicians is a continuing dilemma. This is one of the principal reasons why ISMA has formed the Physicians Insurance Company of Indiana (PICI), which was done at a special meeting of the Board of Trustees, April 21, 1982. Medical professional liability insurance companies should be highly accountable in a responsible and appropriate manner for their claims and underwriting procedures, their mechanisms for setting rates, and for communicating loss data to physicians in an effort to help contain the rise in the number of claims and suits. This information has simply not been made available through a physician-owned company, whose underwriting and claims committees will consist of all Indiana physicians. Accordingly, through the establishment of a stock insurance company, controlled by Indiana physicians and the IMSA with a physician-dominated board of directors, Indiana physicians can finally control their own medical liability insurance destiny and take advantage of the most favorable underwriting climate in the country.

PICI, which received its Certificate of Authority from the Indiana Insurance Department on July 1, 1982, will provide certain distinct advantages for Indiana physician policyholders. A PICI policy will guarantee that no monetary settlement will be made without the physician's written consent prior to court judgment of any covered claim or suit. Furthermore, physician policyholders will not be surcharged for any claims or suits that may occur.

Indiana Physicians Life Insurance Company (IPLIC)—The Indiana Physicians Life Insurance Company (IPLIC) was formed as a subsidiary of Indiana Physicians Investment Company (IPIC), a holding company, and received a license to conduct business in Indiana in August 1981. The purpose of the company is to serve the life insurance and financial planning needs of physicians, their employees and family members. Indiana Physicians Life will offer a complete line of life insurance products and services specifically tailored for physicians. In addition to excellent life insurance products, the company will introduce such exciting new products as: Universal Life, Retired Lives Reserves, and Group IRAs.

IPIC stock provides Indiana physicians the opportunity to own their own life insurance company. Unfortunately, the sale of IPIC stock is progressing slowly and time is running out. The offering expires in September 1982 and, unless a substantial amount of stock is repurchased soon, Indiana physicians will wind up being minority owners of an Ohio physician-owned Indiana company. Most of the profits and benefits will accrue to Ohio physicians and rightfully so since they advanced the capitalization. Buying IPIC stock may not be viewed as an investment in the traditional sense, but it is an investment in your Association which will provide direct benefits to members through stabilization of dues, improved membership benefits, etc. as the Life Company (IPLIC) becomes more successful. Purchasing only 50 or 25 shares of IPIC stock broadens the base of participation and is not going to work a hardship on anyone.

Development of a National Health Policy (Priorities)—At its June 1982 annual meeting, the AMA House of Delegates approved development of a National Health Policy over a two-year period. This important undertaking will involve a variety of professional, business, labor, and insurance organizations and carries a fiscal note of approximately $3 million. The purpose of the project is "To give the private sector the opportunity to produce a conceptual and philosophical framework that will be consistent over a multiple year period as the basis for specific action plans and proposals that are responsive to the particular social, economic, scientific, educational and political circumstances that evolve from year to year." The National Health Policy will provide the opportunity for AMA and others in the health sector to abandon the traditional year-by-year piecemeal development of health policy in response to the short term pressures of the moment in favor of a long-term, considered approach that will stand the test of time.

The Federal Trade Commission and the Professions—The activities and operation of the Federal Trade Commission have been under intense Congressional scrutiny in recent years. Of major concern to the medical profession has been the FTC's actions designed to prevent professional self-regulation and to regulate the practice of medicine.

On March 23, 1982, the U.S. Supreme Court announced that it had divided four to four, with one Justice not participating, in the AMA case. Consequently, the Court failed to resolve the important questions presented as to the jurisdiction of the FTC over the professions. The result is that whether and to what extent the FTC has authority to regulate the professions are issues that must be resolved by the Congress.

The AMA and your ISMA have been vigorously supporting a bill passed by the Senate Commerce Committee that clarifies that FTC has never had and should not have jurisdiction to regulate the professions. The FTC was created to deal in areas of industrial and commercial business in which regulation by an administrative agency with busines

expertise was believed more desirable than judicial enforcement. Organized medicine does not advocate exempting the professions from the federal antitrust laws. Rather, it believes that actions in federal court by the Justice Department, by the states, and by private individuals are appropriate and effective means of dealing with such issues. Therefore, the AMA and the federation are advocating an amendment to the FTC Act to clarify that the FTC lacks jurisdiction over state-regulated professions and their associations.

The two principal bills in the Senate are S.1984 and S.2499. S.1984 would amend the FTC Act to clarify that there is FTC jurisdiction over the professions, prohibit FTC jurisdiction over the professions, prohibit FTC preemption of state laws and make major procedural changes in FTC proceedings. S. 2499 would, among other changes, define unfair acts or practices, prohibit FTC preemption of state laws on scope of professional practice of state-licensed professionals, and extend the congressional veto power on trade regulation rule provisions.

In the House of Representatives, H.R.3722, which has more than 200 cosponsors, would place a moratorium on FTC activities regarding state-regulated professions and professional associations. Your ISMA along with the AMA has been working hard to secure cosponsors for H.R.3722. Thus far, at least six Indiana Congressmen have signed on as cosponsors of H.R.3722.

The vital question of whether the FTC will be allowed to continue its self-appointed role of regulator of the professions will soon be decided. This issue has been described as the most critical challenge facing the profession in the last 15 years.

Repeal of Health Planning—The ISMA has been working hard to gather support from Indiana's Congressional delegation for the repeal of the original Health Planning Act (P.L. 93-641). Indiana Congressmen have been contacted on several occasions urging their cosponsorship of H.R. 4554 that would repeal the Health Planning Act. More recently, Senator Dan Quayle introduced a Bill, S. 2720, that would provide transitional funding for the creation of a new, voluntary, nonregulatory health planning program. This legislation would repeal the existing Health Planning Act, and appropriate $20 million to be used by the states for voluntary, locally-based health planning, none of which could be used for regulatory purposes or certificate-of-need programs.

Blue Cross-Blue Shield VIP Program—The introduction by Blue Cross-Blue Shield of its VIP program earlier this year has generated great consternation among ISMA members and occupied a considerable amount of time on the part of your Association's leadership. The ISMA believes it has an obligation to protect the rights of the nonparticipating physician and has sought to keep the membership informed of new developments associated with the program. Consistent with this approach, the ISMA will continue to monitor the experience as the VIP program is implemented and evaluate options for possible legal action since the larger issue involved here is whether physicians will be able to retain the prerogative to set their own fees.

Donald F. Foy
Executive Director

President-Elect

This short message will summarize the activities of your president-elect for 1981-1982. My address at the annual meeting will focus more strongly on activities for the coming year.

The president-elect year is one of learning and reorientation. The actions and reactions involved in this position are different from those of a trustee or board chairman. The president-elect position is that of a back-up spokesman and "apprentice" to the position of president. As president-elect, it has been my distinct privilege to meet even more members around the state. Many doctors offer ideas or offer to participate in ISMA activities, and that is very gratifying. The enthusiasm of those involved in ISMA efforts fortifies me for the coming year. We must transmit this enthusiasm to others.

The major areas of ISMA officer and trustee activity in 1981-1982 have included the Investment Company (IPIC), the Life Insurance Company (IPLIC), the Medical Liability Company (PICI), legislative matters (state and national), AMA matters, business of ISMA (fiscal and administrative), plus consideration of items presented by the 1981 House of Delegates and the commissions. Our work in these areas has been greatly enhanced by what may be the most outstanding state medical association staff in America. I thank the ISMA House of Delegates for the opportunity to serve as president-elect. I hope that my performance as president reflects an effective learning response during this current year. It has been great fun.

The coming year will focus on increasing the percentage of members participating in ISMA activities, acquisition of new members, heavy emphasis on our input on state and national legislative process, and solid commitment to enlighten members about the advantages of our new insurance companies.

John Knote, M.D.
President-Elect

Board of Trustees

This year, my first as chairman of the Board of Trustees, has indeed been a busy one and a demanding one. Upon election to this post, I dedicated myself to dissemination of the information of Board actions to the membership; to make myself available to hear the needs and suggestions of the membership; to represent the ISMA interest when appropriate to the best of my ability in the medical, political, business and legal arenas; and to conduct efficient Board meetings with open and thorough discussions leading to wise and informed decision making.

With these goals in mind, I would like to lay before you the journey taken this year by your elected chairman of the Board of Trustees. Continuing the excellent work of my predecessor, we have continued sending to the membership a summary of Board actions soon after each Board meeting. We hope each of you took time to "See Ben Morgen's Notes" of these actions.

I have attended 10 of the 13 ISMA district medical society meetings, three ISMA Regional Leadership Conferences and the Legislative Leadership Conference, the ISMA Auxiliary Annual Convention Dinner, 10 ISMA Executive Committee meetings, three IMPAC Board meetings and four business/medicine coalition meetings. In addition, I have helped to start a new coalition in Terre Haute, have attended numerous ISMA committee, sub-committee, and commission meetings, and have presided over seven ISMA Board of Trustee meetings. I spent five days at the National Conference on Malpractice in California and presented a seven-page formal summary report to the Board.

At the AMA level, I attended the five-day December House of Delegates Interim Session in Las Vegas, the three-day February Leadership Conference in Chicago and the six-day Annual AMA meeting in Chicago in June. With our ISMA leadership, I visited both of our Indiana Senators' offices and several representatives' offices during our annual ISMA three-day Washington Visitation in April.

I have attended several of the organizational meetings of the Indiana Physicians Insurance Companies, including a three-day workshop in Chicago. I served, once again, as the physician-of-the-day at our State Legislature, attended the Governor's two-day conference on higher education, and continued for the seventh year as an officer of the Indiana State University Board of Trustees on whose campuses the Terre Haute and Evansville Centers for Medical Education are housed.

I also served as a member of the Associate Clinical Faculty and as chairman of the Citizen's Advisory Committee to the Terre Haute Center, was re-elected to the Executive Committee of the Governor's appointed Statewide Health Coordinating Council, attended the board meetings of the Indiana Academy of Family Physicians and presided at their past president's breakfast, and of course, attended a goodly number of luncheons and other meetings with persons concerned with ISMA Board policy and decisions.

Now, perhaps more meaningful to you and certainly more importantly, I would like to highlight some of the major issues that occupied the concern of the ISMA Board of Trustees during the year:

- Continued attention was directed by the Board to legislative issues and, as a result of this emphasis, Regional Leadership Conferences were held throughout the state to establish more direct communication between the individual practicing physician and his legislative representatives. Legislators who attended the conference advised physicians that they must become more visible, communicate with their legislators and participate in the legislative process.
- The Board supported Dr. O'Neill's recommendation to create an Ad Hoc Commission on Scientific Affairs to deal directly with such medical matters as health effects of environmental contaminants, genetic counseling and birth defects, use of tranquilizers and antidepressants, etc. Many in-depth reports on such medical matters as these are produced by AMA councils and committees with recommendations. The purpose of the new committee would be to evaluate such reports concerning

their adaptability as ISMA policy and provide, when requested, authoritative professional information to the membership and the public.

• The health planning program was reviewed thoroughly by the Board. The Board's position on the issue involved advising the Indiana Commissioner of Health that ISMA in in favor of voluntary health planning, seeks repeal of both P.L. 93-641 and Indiana's health planning law, and encourages physicians to participate in voluntary health planning in their communities.

• In mid-December, 1981, a special meeting of the Board was held to review segments of the Preliminary State Health Plan. The Board, in this all-day meeting, discussed and made recommendations on those portions of the plan that dealt with respiratory health, emergency medical services, health problems of the aging and the aged, heart disease, health care costs, medical group practices, infant and young adult health, and community health services.

These recommendations were forwarded to the Health Commissioner for inclusion in the "Plan." The Commissioner expressed sincere gratitude to the Board for its thorough critique of the "Plan."

• For the first time in the history of the Association, the members' health and dental insurance, on approval of the Board, was transferred from Blue Cross/Blue Shield to the Lincoln National Life Insurance Company whose bid for the business produced greater benefits at lesser costs.

• President O'Neill advised the Board that he intended to appoint an ad hoc ISMA Malpractice Advisory Committee with the hope that it be made a permanent committee to monitor the status of malpractice in the state and be in a position to present factual information to the Commission on Insurance, the Legislature and the membership.

• The sale of Indiana Physicians Investment Company (IPIC) stock continued to be discussed during the year and continued to receive the support of the Board, although stock sales have not measured up to the anticipated participation. Efforts have continued, however, by members of the Board, in encouraging ISMA members to participate. It continues to be the hope of the ISMA officers and Board that the membership will see the value of Indiana physician ownership of IPIC and IPLIC and purchase stock in the company.

• A major step in serving ISMA members was instituted when the Board approved the formation of a casualty insurance company to write medical liability insurance jointly with the Physicians Insurance Companies of Ohio, Michigan and Kentucky. The major reason for the decision was to aid Indiana physicians in controlling their own medical liability destiny and provide a long awaited, much needed and much requested service to the membership.

• The Blue Cross/Blue Shield Voluntary Incentive Program (VIP), inaugurated abruptly and without prior official discussions with ISMA, created a considerable uproar by ISMA members and the Board of Trustees, resulting in a greater breach than ever in the relationship between the Blues and Indiana physicians. The Board directed that the membership be constantly advised of new developments in the program, which has had a questionable legal status from the outset, especially the provision of the VIP program which refuses to accept Assignment of Benefits from non-participating physicians. The Blue Shield Board was requested by the President of ISMA, Dr. O'Neill, to "delay implementation of the program to allow a reassessment by the Blue Shield Board."

As a result of this program and in view of the cessation of any official relationship with Blue Shield, the Board has elected to introduce Resolution 82-6, "Rescinding Resolution 62-26." The new resolution resolves that ISMA continue to "oppose any third party payment program that delineates physicians by lists on assignment—or payments or treats policyholders without uniformity."

These were essentially the major concerns of the Board during the year. We had excellent participation by the trustees, the alternates, president of the Auxiliary, and the ISMA officers.

I wish to thank all of them for their assistance in conducting the business of the Board in an effective manner. No report of the Board could be complete, however, without expressing deep gratitude to our loyal, dedicated staff whose expertise and counsel have been invaluable.

Paul Siebenmorgen, M.D.
Chairman

Treasurer

An unaudited report of receipts and expenditures and the state of funds on hand at Sept. 30, 1982, was included in the House of Delegates packet.

Douglas H. White, M.D.
Treasurer

Executive Committee

The Executive Committee as of July 1, 1982, had met 12 times to consider a multitude of items of business. Some of these issues are as follows:

1. Recommended to the Board of Trustees that the ISMA proceed with its own actuarial study of the Patients Compensation Fund because of the anticipated recommendation to raise the surcharge as high as 40%.
2. Continued to explore the possibility of purchase of the property immediately north of the ISMA headquarters and authorized an independent appraisal of the property.
3. Requested that legal counsel propose legislative changes in the objectionable portions of H.B. 2042 dealing with chiropractic scope of practice.
4. Reviewed all 1981 resolutions requiring fiscal notes.
5. Authorized the purchase of a CPT word processor to facilitate staff services to the membership.
6. Reviewed and approved the 1982-1983 budget.
7. Met with the Medical Licensing Board regarding important issues confronting the profession, i.e., educational standards of FLEX candidates, preceptor training for foreign trained physicians, status of physician assistants and personnel needs of the Board. The MLB was also encouraged to share legislative proposals with ISMA as soon as they are developed.

8. Directed the staff to survey state societies of comparable size to determine the percentage of their budgets devoted to various program categories such as legislation, public relations, membership services and others.

9. Reviewed and reaffirmed the current investment policy and the composition of the Investment Committee.

10. Approved the concept of three regional legislative conferences in November of each year.

11. Attended the AMA National Leadership Conference held annually for state society leaders in February.

12. Established a policy of reimbursement for student representation at the AMA annual and interim meetings.

13. Made the annual Washington visit with Indiana congressmen in April.

14. Endorsed a recommendation that the AMA delegation introduce a resolution in the AMA House calling for the re-establishment of the AMA's Commission on Health Care Costs.

15. Agreed to appropriate $50,000 for investment capital in the formation of an Indiana Malpractice Insurance Company.

16. Authorized the deposit of $65,000 to reactivate the Student Loan Fund following detailed discussions with I.U. Associate Dean James E. Carter, M.D.

17. Authorized the transmission of a letter to the Indiana Insurance Commissioner challenging the legality of the non-assignability provision of the Blue Shield VIP Program.

Currently, the committee is considering the possibility of changing the staff retirement plan from a "Defined Benefit Plan" to a "Defined Contribution Plan."

We anticipate possibly three to four more meetings prior to the meeting of the House of Delegates.

I wish to thank both the members of the committee and the ISMA staff for their faithful, diligent and careful efforts in matters handled by the Executive Committee.

Herbert C. Khalouf, M.D.
Chairman

The Journal

The first eight months of this fiscal year showed Journal income approximately $15,000 above the budget and Journal expense almost $2,000 below budget. The only item which will alter this proportion is the September issue, which is always bigger than average. However, this one large issue will not alter the favorable comparison between income and expense by very much.

Subscription income has mostly been received for the entire year. Ordinary outside subscriptions are at 95.6% of the budget. Exempt members subscriptions are well over expectations at 153% of budget.

Among the income items that accumulate each month are the advertising accounts. On a year-to-date basis the national advertising sales for eight months are up by 166% over the budget. Local ad sales are up by 136% over budget. Other monthly income accounts such as reprint sales and publication subsidies are up by 200% and 340%, respectively.

Income items such as I.U. CME articles and Physicians Directory are below the levels forecast by the budget.

The fiscal year will probably end with an excess of revenue over expense of approximately $12,000.

The contribution of scientific articles, the production of the excellent I.U. CME articles and the supply of socioeconomic articles has been sufficient in numbers and quality.

The policy of limiting scientific articles to two journal pages except when subsidized has served to produce many concise discussions. In instances in which adequate coverage demands more space, subsidies at the rate of $100 per page for the excess pages are being supplied by authors, by special funds, or by the Indiana Medical Foundation.

The Foundation continues to grow financially and, each year, awards an increasing, though modest, amount of financial aid in the form of article subsidies. ISMA members are urged to contribute generously to the Foundation. Increases in the investment account of the Foundation will provide more and more support for THE JOURNAL and for other continuing medical education projects in the future.

The 75th year of publication for THE JOURNAL was celebrated by the January 1982 issue. A brief history of the Association and THE JOURNAL was included with a listing of the Council members who established THE JOURNAL in 1907. All the editors, all the members of the Editorial Board, and the business managers were listed for the record.

Next year, 1983, will launch THE JOURNAL into the fourth quarter of its first century replete with friends and supporters and faith in the future.

Frank B. Ramsey, M.D.
Editor

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First District

Approximately 180 physicians, spouses and guests attended the First District Medical Society Annual Meeting held at the Evansville Country Club on June 22, 1982. Following a cocktail hour, generously supplied by Mead Johnson & Company, and dinner, the group heard several reports during the brief business meeting by: Dr. Martin O'Neill, ISMA president; Dr. John Bizal, First District trustee; Dr. Lawrence Allen, speaker of the House; and Dr. Gilbert Wilhelmus, AMA alternate delegate and Blue Shield Board member. Officers were then elected: Steven Elliott, M.D., president; Kent McKinney, M.D., vice president; Donald Elder, M.D., secretary-treasurer; and Wallace Adye, Jr., M.D., alternate trustee. Appreciation was expressed to the VCMS staff for organization of the meeting, which concluded with an excellent presentation by Dr. Otis Bowen.

The 7th Annual Bob Acre Memorial Golf Tournament was held at the Evansville Country Club on June 17. Winners were a father and son team from Vanderburgh County: Weston Heinrich, M.D.—Low Net, and James Heinrich, M.D.—Low Gross.

The First District Medical Society was well represented at the 1981 ISMA Convention with delegates actively involved in the candidacy of Dr. Patrick J.V. Corcoran for AMA delegate, proposing resolutions in behalf of First District, and maintaining a caucus room. The First District, as a result of House approval, grew to eight members with the welcomed addition of Dubois County. Preparations are under way for the 1983 Convention to be held in Evansville at the Executive Inn.

There were two medical organizations undergoing substantial change within the region this past year. The Southwestern Indiana Health Systems Agency is due to be defunded in April 1983. The newly organized Southwest Indiana Emergency Medical Services Regional Coordinating Center is now assisting counties to develop EMS Councils. The Evansville area has had an active EMS Council since 1977.

Membership in the First District decreased 1% to a total of 396 ISMA members as of March 31, 1982. Seventy-six per cent of First District members belong to the AMA.

John A. Bizal, M.D.
Trustee

Second District

It was my pleasure to be elected ISMA trustee during a very exciting and productive year. The amount of material digested by the Board of Trustees and the decisions demanded are enormous. I would like to express my gratitude to my fellow trustees and the ISMA officers for their patient help and assistance during my "freshman year."

First, for the physicians of the Second Medical District, I would like to express a resounding "THANKS" to Dr. Harold Manifold for his faithful representative contributions to the ISMA as my predecessor. We were pleased to have him represent us and hope that his expertise will continue to affect the ISMA in other future capacities. I personally knew that it would be difficult to fill his shoes.

The Second Medical District meeting this year was hosted by Greene County with Dr. Tom Bailey presiding. The meeting was held at the Shriner's Club in Linton, Ind. Attending the meeting were most of the officers of the ISMA and most of the ISMA staff. Their attendance was greatly appreciated. Very informative and interesting lectures were delivered on the office evaluation of the pulmonary patient and cardiac arrhythmia as seen on ECGs. A delicious meal was enjoyed by all followed by a very direct and concise view of the economy by Mr. Frank McKinney, chairman of the Board of American Fletcher National Bank. Dr. Fred Buehl was elected president of the Second Medical District for the coming year and the next annual meeting will be held in Vincennes, Ind., with the host being Knox County.

The past year could very well be called "the insurance year of ISMA." As noted before under direction of the House of Delegates, the Board of Trustees finally put the beginnings of a malpractice insurance company into action. In order to finance a malpractice company, a broad-based life insurance company was created and stock sales have been less than hoped for and shares and policies are still being sold each day. During the past few months a second company dealing with the malpractice insurance itself has taken shape which will be operating in tandem with the life insurance company in the future. This manipulation was necessary because of a closer than anticipated future malpractice crisis and an immediate broad financial base by the Physicians Insurance Company of Ohio, Kentucky and Michigan. Much of the resistance to "our" (ISMA) insurance company has arisen from misconceptions among the constituents.

This year we have witnessed a sharp division between Blue Cross/Blue Shield and the ISMA. The ISMA-supported medical insurance policy was switched to the Lincoln National Life Insurance Company mainly for economic reasons. One company was planning a 8% rise and the other was a 40% increase. Also, ISMA members have been introduced to the V.I.P. program, which has been viewed very negatively in the Second Medical District. I hope to keep my constituents informed about the way this controversial and possibly unfair program will be promulgated by the Blues.

Leadership meetings between the county society officers, ISMA officers and the district legislators were very well received during the past year. This was very informative to all who attended. We hope to expand this to include more physicians and spouses in each district in the future.

The Health System Agencies and Certificate of Need legislation are still in limbo and awaiting judgments from our state and national level. In any future configuration of this system it appears that the "grass root level" of input into the allocation of health care will be the key factor. I urge everyone in my district to participate and provide this "grass root" input.

This past year has been very educational to me and I hope that I can continue to keep my Second District members appraised of the constant changing face of our state organization. I plan to attend more county society meetings and discuss the issues presented, explain the decisions made and seek opinions to correctly represent them. Also, I hope to get more con-

stituents to participate in the ISMA functions, for it is only through more physician members that the strength of our society will continue to develop and build.

Ralph W. Stewart, M.D.
Trustee

Third District

The Third District Medical Society met in April 1982 at Spring Mill Park in Mitchell in conjunction with the Indiana Academy of Family Physicians. Attendance was adequate for the weekend's festivities with good scientific meetings, updates from ISMA officers, and reports from staff. Election of officers was held and the following physicians were elected: President—Eli Goodman, M.D.; Secretary-Treasurer—Peter H. Livingston, M.D.; and gratefully R. G. (Dick) Huber, M.D., will serve as your trustee for another term. Clark County will host the 1983 district meeting.

The following topics were covered in my report: Professional Liability, IPIC and IPLIC, local views of free-standing emergi-centers, the state health plan, 1982's Legislative seminar, medical student loans, the changeover to Lincoln National as of April 1, ISMA's word processor purchase, and Dubois County's move from Third to First District.

Future concerns about health care cost control and voluntary health planning introduced discussions about local business/medicine coalitions. Legislative updates included PSRO/HSA limitations, patient record access, abortion for minors, health planning, and the increase for Indiana's malpractice surcharge.

Finally, I respectfully submitted reminders to review all ISMA reports, support IMPAC, and to attend the ISMA annual meeting October 15-18, 1982, in Indianapolis at the Holiday Inn-North.

I am committed to meeting you individually at your society meetings or whenever questions may arise. Please feel free to contact me with your concerns, so that I might fulfill the privilege of serving as your trustee.

R. G. (Dick) Huber, M.D.
Trustee

Fourth District

The 1981-82 medical year has been very successful in many respects, including 1) further expansion of membership benefits such as more offering of various types of insurance from our own insurance company and the development of our new malpractice insurance company, 2) increasing the political awareness by our members by having the political dinners with the state legislators in each district, and 3) increasing the coverage of benefits and health insurance to our own membership through our new Lincoln Life plan.

This next year we will again be asked to face several important issues including clarification and challenge in the legality of third-party payers who wish to set the fees of physicians throughout the state. The only way in which these issues can be met is through our continued support and involvement by the membership in various commissions and committees. I would recommend that each member consider participating in some level in the operation of the ISMA. The old adage of "one receives only as much as he contributes" certainly applies to our organization.

The Fourth District Medical Society held its annual meeting in Greensburg in 1982. Mr. Tom Mont, athletic director of DePauw University, was our guest speaker. Doctor William Cooper of Columbus again retired the golf trophy. I would like to take this opportunity to thank Dr. Cooper for his excellent participation and attendance throughout the year as alternate trustee. Our meeting was well attended and my special thanks goes to the ISMA staff as well as all the persons from Greensburg who contributed to the meeting.

I also would like to express my thanks to the local medical societies who were so cordial when I attended their meetings throughout the year.

It should be noted that Doctor Weisenbarger from our Fourth District is becoming well known for his active participation in developing the business-medicine coalition throughout this state. It is only by this method that consumers of health care can be educated to the feelings of organized medicine on various health issues.

Doctor Charles Calhoun of Seymour represented our district on the annual legislative visit to Washington, D.C. and I wish to thank him for his participation.

Mark M. Bevers, M.D.
Trustee

Fifth District

The Fifth District trustee report begins this year with appreciative congratulations to the many Fifth District doctors and auxiliary members who have served so well during the past year as officers and as members of various commissions, committees, IMPAC board, and delegate bodies. Their service and insight have been invaluable and all of us at the ISMA are the better because they were willing to give of themselves on our behalf.

I likewise take this opportunity to thank all the doctors who have gone the extra mile to help my patients during the hours, days, and weeks this year while I have been away from my solo practice on ISMA and AMA duties. Through the helpful support of all these, I was able to confidently assume the chairmanship of the Board of Trustees with all the responsibilities of that leadership position. I trust that the additionally obtained knowledge gained in the related medical, political, and legal arenas has helped me to better represent our ISMA members.

The Fifth District Medical Society met at the Turkey Run Inn June 2, 1982, with Dr. Frank Swaim, president, presiding and Dr. Peggy Swaim giving the treasurer's report. The business session featured informational discussion with ISMA leaders—Drs. O'Neill, president, Haley, immediate past president, Allen, speaker of the House, Popplewell, president of Indiana Physicians Investment Company, Knote, president-elect, Scamahorn, AMA delegate and Don Foy, executive director. Topics covered a wide range of subjects including life insurance, liability insurance, political action, third party carriers, and AMA resolutions. President Pro Tem, Senator R. Garton, was the featured after-dinner speaker.

Fifth District president-elect is Dr. Thomas F. Orman, Terre Haute, while Dr. Peggy Swaim remains secretary-

treasurer and Dr. Benny Ko was wisely re-elected alternate trustee.

The 1983 meeting will be in Vigo County. In the meantime, we will continue to keep the membership informed of the Association's activities and will continue to solicit the Fifth District members' helpful suggestions, thoughts, ideas, and energies toward an even more effective ISMA.

Paul Siebenmorgen, M.D.
Trustee

Sixth District

The only general meeting within the Sixth District during the past year was the Annual Meeting. It was held in New Castle and hosted by the Henry County Medical Society at the Westwood Country Club on May 5, 1982. The meeting was conducted by William Kerrigan, M.D., president. Local arrangements were in the hands of Wylie McGlothlin, M.D. All county medical societies within the Sixth District were represented.

Members from ISMA staff and officers including President Martin O'Neill, M.D., Past President Alvin Haley, M.D., House Speaker Lawrence Allen, M.D., and AMA Delegate Arvine Popplewell, M.D., were present to participate in the business session. Pertinent medical business and political topics were discussed. Officers for the Sixth District Medical Society were elected as follows: President, Robert Warren, M.D. of Richmond, and Vice President Wylie McGlothlin, M.D. of New Castle. Greenfield is to be the site of the 1983 Sixth District meeting and Hancock County Medical Society is to name a secretary-treasurer. I was elected to a second three-year term as trustee, Sixth District Medical Society.

The evening social program was well attended and warmly received.

Individual county medical society representatives have been contacted by me during the year in the interest of state and local problems. I want to take this opportunity to recognize my alternate, Clarence Clarkson, M.D., of Richmond, for his assistance in both state and local matters.

Davis W. Ellis, M.D.
Trustee

Seventh District

The 1982 meeting of the Seventh District Medical Society was held June 29 at Valle Vista Country Club in Greenwood, Ind. For the second year, the schedule provided for a brief meeting of the Indiana Academy of Family Physicians Seventh District.

Our district has been honored over the years to have strong representation from among the ISMA leadership. We appreciated the attendance of Dr. John Knote, president-elect, Dr. Herb Khalouf, Executive Committee chairman, Dr. Shirley Khalouf, vice speaker of the House of Delegates, Dr. Paul Siebenmorgan, chairman of the Board of Trustees, and Dr. Everett Bickers, AMA delegate. Mr. Don Foy, executive director, and Ms. Sara Klein represented the ISMA staff. Dr. Knote presented a brief report on the current status of Blue Shield's Voluntary Incentive Program.

Dr. George Lukemeyer, Seventh District member and delegate to the AMA, reported on the recent House of Delegate meeting and expressed the keen disappointment of the delegation when over a year of aggressive campaigning on behalf of Dr. Lowell Steen's candidacy for president-elect of AMA failed, and Dr. Frank Jirka was chosen to the position by the House of Delegates.

Dr. Lukemeyer went on to report on specific actions of the House of particular interest. He reported that recommendation #20 of the Council on Medical Education, report B, calls for establishing a transitional year of training between medical school and residency which includes a broad-based clinical training experience. He also noted that in 1983 it appears there is a possibility that there will be fewer first-year residency programs available for graduates than there are graduates.

It was also reported that the House has approved a dues increase for 1982; that study is being given to representation in the House of Delegates for hospital medical staffs and on the need for physicians to support legislative action to inhibit the Federal Trade Commission's further intrusion into the practice of medicine.

Lengthy discussion was also given by the House of Delegates to a proposal for the AMA to develop a national health priorities statement. The drafted documents from this effort will be subject to review and approval by AMA Councils, the Board and the House of Delegates.

Dr. Shirley Khalouf was on hand to invite and encourage attendance at the ISMA annual convention in October and reported that at this time only six resolutions have been received for consideration by the House of Delegates.

Dr. Alvin Haley, a Seventh District member and immediate past president of the State Association, reported on the developments with Indiana Physicians Investment Company, Physicians Insurance Company of Indiana and the Indiana Physicians Life Insurance Company. Dr. Haley introduced Mr. Harold Wilson, vice-president of IPLIC, who described several of the insurance products that will soon be available to ISMA members. Dr. Gerry DeWester, IMPAC treasurer and Seventh District member, presented a brief report on IMPAC and the need for even broader participation by the members in this important phase of their professional lives.

We were pleased that Dr. Warren Gray of Morgan County, president-elect of the Seventh District, was on hand to conduct the meeting in the absence of Seventh District president, Dr. Lloyd Terry. Annual elections for the district resulted in the selection of Dr. Hugh Andrews of the Johnson County Medical Society as president-elect for 1982/83 and the re-election of Dr. Malcolm Scamahorn to continue as the district secretary-treasurer.

Dr. John MacDougall was re-elected alternate trustee from the district and Dr. Garry Bolinger was re-elected to a full three-year term. Previously, Dr. Bolinger had served one year as he completed the term vacated by Dr. H. Marshall Trusler, who was elevated to a trustee position in 1981.

Following the ISMA district meeting and the Indiana Academy of Family Physicians district meeting, the members were joined by their spouses for dinner. We were honored to hear a presentation by Lieutenant Governor John Mutz following dinner. The lieutenant governor presented very candid

valuations of the political scene in Indiana as it relates to state and U.S. Congressional races. He also presented particularly optimistic report on the economy of the state of Indiana in light of the current conditions our fellow citizens face. We were pleased to learn of the lieutenant governor's strong support for the legislative attempts to control the intrusion of the FTC into the learned professions, which are regulated by the states.

As in the past, we have been pleased to note the very active participation of Seventh District members in the affairs of the State Association and American Medical Association. In addition to the various dignitaries who were noted earlier in this report, the district meeting was attended by Dr. Donald McCallum, an ISMA trustee, Dr. H. Marshall Trusler, ISMA trustee, Drs. Doug White and George Rawls, ISMA treasurer and assistant treasurer, respectively, and Dr. Malcolm Scamahorn, AMA delegate and member of the AMA Council on Medical Services who had just completed service as chairman of AMA House of Delegates Reference Committee B. We have also appreciated the participation of Dr. John MacDougall, ISMA alternate trustee, and Dr. Arvine Popplewell, AMA alternate delegate. The participation of these men and numerous other members of the Seventh District in the affairs of medicine for the state and for the nation is genuinely appreciated.

Donald C. McCallum, M.D.
H. Marshall Trusler, M.D.
Trustees

Eighth District

I appreciate the privilege and opportunity to serve as trustee extended to me by the membership of my district. It has been an interesting year and I request your assistance and ideas on all issues and concerns in the future.

The Eighth District yearly meeting was held June 23, 1982 at the Delaware Country Club. Randolph County hosted the meeting and Dr. Susan Pyle of Union City chaired the meeting. Our current alternate trustee, Dr. William Van Ness II, was elected as alternate trustee for three additional years. Doctor Van Ness was filling a previously vacated term. The Eighth District meeting for 1983 will be hosted by Jay County. Dr. Alfonso Lopez was elected president for the coming year and Dr. Frank Bonsert was elected treasurer. A tentative meeting date of June 15 was selected and the site of the 1983 meeting will be selected at a later date.

The yearly meeting was well attended. The district was pleased to welcome as guests, Martin O'Neill, M.D., ISMA president; John Knote, M.D., president-elect; Paul Siebenmorgen, M.D., chairman of the ISMA Board of Trustees; Herbert Khalouf, M.D., chairman of the ISMA Executive Committee; Shirley Khalouf, M.D., vice speaker of the ISMA House of Delegates; Arvine Popplewell, M.D., past president of ISMA; Malcolm Scamahorn, M.D., ISMA delegate to the AMA; George Lukemeyer, M.D., ISMA delegate to the AMA and candidate for president-elect of ISMA; Everett Bickers, M.D., ISMA delegate to the AMA; Donald Foy, executive director of ISMA; and Howard Grindstaff, ISMA staff. Lawrence Allen, M.D., speaker of the House of Delegates and a member of our district, was also present.

At the meeting, an informative discussion ensued regarding Blue Shield's V.I.P. program, which is being readied for implementation. It was advised that all ISMA members carefully examine the plan prior to deciding on participation, and the legality of the plan was being questioned. Other information discussed at the business meeting consisted of the new medical malpractice insurance program, which will become available for purchase from the state medical association company, and medical education was discussed.

Following the business meeting, dinner and a very entertaining speech by Dr. Phil Thorek was enjoyed by the membership and guests.

I would again request any information of concerns or problems of the membership and would encourage increased participation by physicians of the Eighth District in the ISMA functions and the political process both in state and federally. Thank you very much for being able to serve you for the past year and I will look forward to seeing you in the coming year.

Richard Reedy, M.D.
Trustee

Ninth District

1981-82 has been a year of change in leadership in the Ninth District. Dr. John Knote, who had served with distinction as our district trustee and as board chairman, was elected president-elect of ISMA and I succeeded him as trustee. I consider it an unusual opportunity and a challenge to represent the physicians of the Ninth District on the ISMA board. I hope to voice the viewpoints and will work on behalf of all those I represent.

During my first year, I have found my fellow physicians very willing to serve on commissions and to participate as members of reference committees. I, along with John Knote, president-elect, Peter Petrich, AMA delegate, and Howard Grindstaff, ISMA staff, have met with several county societies during the year. These meetings have helped us to be aware of problems confronting practicing physicians in our area. Hopefully, as problems arise, our willingness to help resolve them will be evident to everyone.

Following an excellent pre-planning session held in March, our district meeting was hosted on June 24 by Fountain-Warren County with President Peter R. Petrich presiding. The meeting was well attended and a number of ISMA officers and staff were guests.

During the afternoon business session, an "open discussion format" was in order with ISMA President O'Neill reporting on V.I.P. and other related ISMA matters. Dr. Popplewell spoke about IPLIC and the new malpractice insurance company. AMA delegates, Drs. Lukemeyer and Scamahorn, gave brief summaries on the recent convention held in Chicago and President-Elect Dr. Knote spoke regarding his activities and topics of future interest to all ISMA members. Two Blue Shield board members, Drs. Fitzpatrick and Petrich, were most helpful in answering and clarifying questions regarding current activities of Blue Cross toward forming an HMO. Dr. Petrich pointed out that

Blue Shield board members do not participate in any policy decisions of Blue Cross. They are indeed separate corporations.

The session proved to be an excellent forum for an exchange of information and ideas between ISMA officers, staff, and Ninth District members. Thereafter, I was elected trustee and Dr. R.A. Lanning of Noblesville was elected to serve as alternate trustee.

The district I.A.F.P. meeting followed. Jackie Schilling, staff members and officers were present to answer questions, and the annual election of delegates and officers ensued.

After an excellent dinner at the Attica Old Towne Inn, members and guests were entertained with an update on "The Shuttle Columbia" by Marshall W. Dietrich, senior aerospace engineer from NASA. His talk was both informative and timely since the "Columbia" started on its final space journey just three days later.

Clinton County was selected as the host for our 1983 district meeting, which will be held in Frankfort next June.

Finally, one of my goals as trustee will be to seek and obtain a broad participation of district members in IMPAC and the new ISMA-sponsored insurance companies now available to members. It is most important that we all support and participate in these areas.

Max N. Hoffman, M.D.
Trustee

Tenth District

Tenth District activities for 1981 focused on the installation of Martin J. O'Neill, M.D. of Valparaiso as ISMA president, and in the campaign of Lowell Steen, M.D. of Hammond in his bid for president-elect of the AMA. Doctors Tom Tyrrell and V.J. Santare served in the AMA delegation.

The annual meeting was held at Wicker Park Social Center with the golf outing held at Briar Ridge Country Club. Dr. Lee Trachtenberg, Tenth District president, augmented our cultural exposure with a dinner trip to the Adler Planetarium, a tour of the Art Institute and dinner at the John Glessner House in Chicago.

Dr. Trachtenberg and I were guests of the Porter County Medical Society at their Christmas party and their annual dinner. Doctors Dan Evans and Frank Sturdevant of Valparaiso attended the Lake County Annual Dinner Meeting on a stormy night.

Governmental Affairs Committee was active throughout the Legislative Session. Local legislators attended several Tenth District functions this year. Several physicians from the Tenth District have been appointed to the Joint Medical Business Task Force on Health Care Costs. Several physicians were changed in membership status to disabled: Doctor Dimailig, Doctor Weiskopf, Dr. Neal and Dr. Loh. We have appreciated their active service in the society. Two members, Dr. Henry W. Eggers and Dr. Leo K. Cooper, are completing 50 years as members of the Lake County Society.

Mr. Jack Swike completed his first full year as our executive director and is learning the ropes as well as showing us a few. Dr. Mary Carroll is continuing her term as Lake County president and Dr. Rustica Delumpa is current president of the Porter County Society.

Our 1982 meeting is to be held at the Lake of the Four Seasons on Sept. 22, 1982.

There are 14 pending applications for membership in the Lake County Medical Society for the meeting in September 1982.

Charles D. Egnatz, M.D.
Trustee

Eleventh District

Over the past year many items were considered by the Board of Trustees. Some of these will have long term impact on us as practicing physicians. One of these was the establishment of Physicians Insurance Company of Indiana. This is a liability insurance company and is now serving the needs of our members for medical liability insurance. The company was funded by ISMA and the Physicians Insurance Companies of Ohio, Michigan and Kentucky. Early next year the stock of this company will be made available to the membership of ISMA. I believe that it is in our own and our patients' best interest that this company be owned and controlled by Indiana physicians. I, therefore, urge each of you to purchase stock in P.I.C.I. when it becomes available to us.

The district meeting was held on Sept. 16, 1982, at the Holiday Inn in Logansport. The meeting was well attended. ISMA officers and staff brought us up to date on many of the issues of concern to all of us.

I was again privileged to serve on the Executive Committee and as the committee chairman.

I want to thank the members of the Eleventh District for the privilege of serving as your ISMA trustee. Some of you have brought matters that concerned you to my attention and I have appreciated this. I encourage each of you to contact me or Dr. Ed Langston, our alternate trustee, with any ideas, problems or suggestions which we or ISMA should be aware.

Herbert C. Khalouf, M.D.
Trustee

Twelfth District

The past year has been an eventful one for your Indiana State Medical Association. Pressures on the independent practice of medicine continue to mount, necessitating a unity among physicians as never before. Prepaid versus fee-for-service medicine, the Blue Cross-Blue Shield VIP program and other issues tend to have a divisive effect as individual physicians opt for different alternatives. For that reason, participation in a strong Association becomes all the more important.

All of us feel the frustrations of trying to deal with various problems as individuals but we only have to look back to 1975 and the medical malpractice act to see what can be accomplished with a united front. As of this writing, the VIP program is being implemented. Efforts of ISMA have succeeded in making participation less of a one-way contract and close attention continues to protect the interests of the nonparticipating physicians who still comprise the vast majority of Indiana doctors.

Although sale of IPIC stock has been somewhat disappointing, we have in operation a physician-owned life insurance company in Indiana which will re-

main sensitive to the needs of ISMA members. New products include universal life, retired life reserves, group IRAs and disability to include the traditional coverage as well as income replacement and office overhead expense.

During the past month the Physicians Insurance Company of Indiana has been incorporated as a casualty insurance company. With this move, we have entered into the malpractice insurance field. Hopefully, it will give us significant leverage in this always controversial area.

The annual Twelfth District Medical Society meeting will be held at the Marriott in Fort Wayne on Sept. 16, 1982. Dr. Edward R. Annis, past president of the AMA, will be featured as speaker.

In closing, I would like to express my gratitude to an exceptional ISMA staff for their efforts throughout the year.

Michael O. Mellinger, M.D.
Trustee

Thirteenth District

The Thirteenth District Medical Society participated in numerous medical activities during the past year. The 1981 annual district meeting was held at South Bend's Knollwood Country Club with President M. Gerald Quinn presiding. The business meeting included the election of the following officers: president, Donald Weninger; president-elect, Donald Minter; and secretary-treasurer, G. Richard Green. It was noted that last year's nominee to the Blue Shield board, Otis Bowen, has assumed that position and thus is in a position to assist us as needed.

This year's annual meeting will be held on Wednesday, Sept. 8, 1982, at Pottawatomi Country Club in Michigan City. The golf course and club facilities are excellent and with the LaPorte County gang as hosts, a good time will be in store. A candlelight dinner, many fine door prizes, and a most-famous after-dinner speaker and past AMA president, Dr. Edward Annis, should make this evening most memorable.

This past year, we physicians have had more changes affecting our profession than ever before. "Reaganomics" dealt a swift blow to PSRO with decreased or zero funding to HSAs as well as a myriad of health projects that have sprung up in the recent past. New cost-containment concepts as well as competition secondary to excess in physicians, changes in health-care delivery including HMO and IPA models, for-profit hospitals and emergi-centers, and the dramatic changes in hospital operation concepts are just a few of the subtle as well as the obvious developments occurring in our district. Caps and further reduction in federal and third party payments should be anticipated as methods to decrease costs. Physicians must be active participants in their local medical society and hospital medical staffs. They must be prepared to thoroughly investigate new policies and adventures and be ready to challenge as well as lead as a group to generate and provide quality medical care for our patients at a reasonable cost.

As you read THE JOURNAL, you will note the supportive activities of the ISMA. The formation of both a life and casualty insurance company will provide many long-term benefits for our members, and I encourage your attention to these programs. The legislative efforts by ISMA and through the political action committee, IMPAC, has been outstanding and demands support by all physicians. I am pleased to again recognize the efforts of so many of our district members in the many community, medical society, and state level activities. We thank you!!! But don't quit now. We need you and any volunteers who would like to get involved but are not sure how.

I would like to express my appreciation to the ISMA staff and especially to the district executive director, Mrs. Rose Vance, for the assistance provided the officers and members this past year. I believe that it is mandatory that our district continue to supply the vehicle for communication. I urge members to use our office (219-288-4401) or the ISMA WATS line (800-382-1721) as a resource for quickly obtaining organization information and assistance.

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cientific Exhibits

George T. Lukemeyer, M.D.
Indianapolis, Chairman

ledical Effects of the Explosion of uclear Devices

Exhibitor: Victor H. Muller, M.D., 001 West 86th Street, Indianapolis, nd. 46260.

Attendants: Paul F. Muller, M.D., tephen R. Stouder, M.D., John A. avins, M.D., David J. Smith, Jr., 1.D., and Victor H. Muller, M.D.

Description: The exhibit is intended o depict the reality and the ramifica- ons of the number, degree and varieties f medical problems which can be ex- ected following the explosion of a nu- lear weapon over a crowded urban enter such as Indianapolis. The exhibit ill show by way of photographs, raphs, charts and maps, the areas af- cted and the various types of injuries nd illness which study and experience eaches us to expect in terms of both ne acute injuries sustained and some f the more chronic illnesses and long erm effects.

The exhibit will also deal with the ffect on the medical community of a uclear explosion and the likely avail- bility of personnel, equipment, sup- lies and institutional space with which ne problems can be met.

olving Drug Eruptions

Exhibitor: Jere D. Guin, M.D., 804 outh Berkley Road, Kokomo, Ind. 6901.

Co-Exhibitors: Wybo Bruinsma, 1.D., Department of Dermatology, ree University, Amsterdam, The etherlands; Leonard J. Swinyer, M.D., epartment of Dermatology, Univer- ity of Utah, Salt Lake City, Utah; and ary E. Isom, Ph.D., Department of harmacology & Toxicology, School of harmacy & Pharmacol Science, Pur- lue University, West Lafayette, Indi- na.

Attendants: Gary E. Isom, Ph.D., and ere D. Guin, M.D.

Description: Accurate diagnosis of rug eruptions can be one of the most ifficult problems in dermatology. Tra- itionally, the clinician makes such a iagnosis on the basis of conformity ith the general description of a drug ruption and his clinical judgment hich depends heavily on his experi- nce.

This exhibit offers an approach that separates drug eruptions into specific, yet easily recognizable categories. By using readily available sources, the physician can more rapidly and sometimes more accurately determine the most probable drug involved. Regular use of this format also alerts the physician to complications that can arise from drugs that he and his colleagues use regularly.

Included in the exhibit is an overview of drug eruptions and color photographs illustrating each category, together with a list of medications found to be more likely to cause an eruption in that classification. Because the subject is complex and the list of medications is long, preference will be given to those drugs causing a higher incidence of that type eruption based on the File of Adverse Drug Reactions.

Prader-Willi Syndrome Chromosome Subgroups

Exhibitor: Merlin G. Butler, M.D., Department of Medical Genetics, Indiana University School of Medicine, Indianapolis, Ind. 46223.

Attendant: Merlin G. Butler, M.D.

Description: Heterogeneity of the Prader-Willi syndrome (hypogonadism, mental retardation, hypotonia, obesity, acromicria) has been suggested by several investigators. Recent evidence with prometaphase chromosome analysis supports the existence of at least two subgroups based on chromosome 15 findings. We have also focused our attention on chromosome 15 and have found an apparent interstitial deletion for the long arm of chromosome 15 based on double blind studies with breakpoints at 15q11 and 15q13 with seven of 14 patients. The remaining patients had normal chromosome findings.

To examine for possible physical differences between Prader-Willi individuals with the 15q deletion (N=7) and normal chromosomes (N=7), anthropometric measurements including the metacarpophalangeal pattern profile (MCPP) were obtained. A step wise discriminant analysis was undertaken on 13 anthropometric measurements (weight; height; sitting height; hand, middle finger, foot and head lengths; hand, foot and head breadths; head, arm and calf circumferences) on the two subgroups based on their chromosome results. Weight, hand length, middle finger length and arm circumference were found to be discriminating variables.

Our results indicate that individuals with the deleted 15q are heavier and have larger arm circumferences as well as larger hand and middle finger lengths. The MCPP analysis showed two separate and distinguishable profiles between the two chromosome groups. MCPP correlation studies suggest a homogeneous pattern in the deletion group but not in the normal chromosome group. Research with additional clinical observations is underway to further clarify differences between the two groups.

Glaucoma Alert

Exhibitor: Indiana Society to Prevent Blindness, 1425 E. 86th Street, Indianapolis, Ind. 46240.

Attendants: Sue Hetherington, Sandy Klapper, and Susan Negley Harlan.

Description: Directed at the non-ophthalomogist professional, the exhibit emphasizes warning signs of glaucoma and contains free literature concerning eye problems.

Calcium and Bone Health

Exhibitor: Dairy Councils of Indiana, 6820 Hawthorn Park Drive, Indianapolis, Ind. 46220.

Co-Exhibitor: Dairy Council of Northern Indiana, Inc., South Bend, Ind.

Attendants: Kathy Cowden, R.D., April King, R.D., and Nancy Rainey.

Description: The Dairy Council display "Calcium and Bone Health" illustrates the research of Anthony Albanese, Ph.D., Director of the Geriatric Nutrition Laboratory, Rye, New York. Dr. Albanese has investigated the nutritional needs of the elderly and the radiographic and therapeutic aspects of bone loss. This display shows the results of his work through graphs, X-ray photograph, and narrative explanation.

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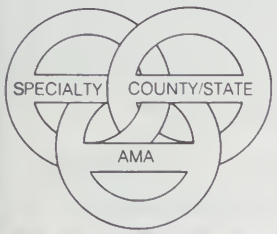
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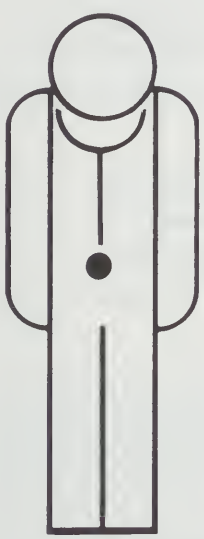
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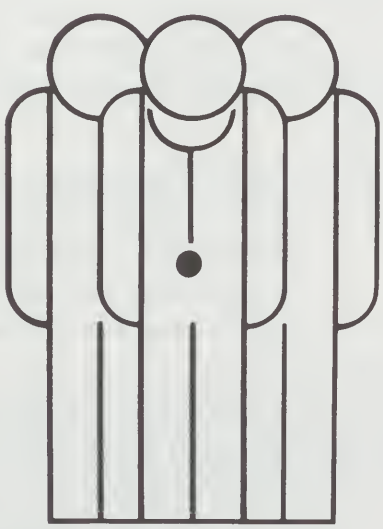
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The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

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OBITUARIES

Lullus P. Müller, M.D.

Dr. Muller, 64, a retired Indianapolis surgeon, died June 27 at St. Vincent Hospital, Indianapolis.

He was a 1942 graduate of Indiana University School of Medicine and was an Army veteran of World War II. He retired in 1979.

Dr. Muller, a fellow of the American College of Surgeons, was a colonel in the Indiana National Guard and was formerly state surgeon for the Guard. He was a faculty member of the Department of Surgery, I.U. School of Medicine, from 1953 to 1978.

Joe H. McCool, M.D.

Dr. McCool, 74, an Evansville physician who lived in Santa Claus, Ind., following his retirement in 1978, died July 7 at his home.

He was a 1935 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

At the time of his retirement, Dr. McCool was medical director and assistant superintendent of the Evansville State Hospital. He was a member of the American Psychiatric Association.

William A. Miller, M.D.

Dr. Miller, 84, a retired Hagerstown general practitioner, died July 3 at New Castle Health Care Center.

He was a 1927 graduate of Indiana University School of Medicine. He retired four years ago.

Dr. Miller, a member of the ISMA Fifty Year Club and the Fifty Year Club of American Medicine, was director and vice-president of Henry County Savings and Loan Association. During the 1970s he was designated a Kentucky Colonel, received the Jaycees Distinguished Service Award and was presented Hagerstown's Good Neighbor and Friend Award.

Samuel M. Baxter, M.D.

Dr. Baxter, 86, a retired New Albany physician, died July 10 at Westminster Healthcare Center in Clarksville.

He was a 1919 graduate of the University of Louisville School of Medicine. He was an Army veteran of World Wars I and II.

Dr. Baxter, a native of Corydon, retired after 53 years as an eye, ear, nose and throat specialist in New Albany. He was a fellow of the American College of Surgeons and was a member of the ISMA Fifty Year Club.

Samuel Goldman, M.D.

Dr. Goldman, 74, an Indianapolis family physician, died July 1 at his home.

He was a 1941 graduate of the University of Illinois College of Medicine and was an Army veteran of World War II.

Dr. Goldman, who practiced in Indianapolis 28 years, was a member of the American Academy of Family Physicians.

Ernest E. Smucker, M.D.

Dr. Smucker, 63, a surgeon at Goshen General Hospital, died June 24 at his home.

He was a 1945 graduate of Northwestern University Medical School.

Dr. Smucker, a past president of the medical staff at Goshen General Hospital, was certified by the American Board of Surgery and was a fellow of the American College of Surgeons. He had served as a surgeon in various mission locations, including Africa and India.

Clarence A. Hartley, Jr., M.D.

Dr. Hartley, 72, an Evansville physician who retired in April, died June 2 at Deaconess Hospital, Evansville.

He was a 1935 graduate of Indiana University School of Medicine.

Dr. Hartley was a former president of the Vanderburgh County Medical Society and was a member of the American Academy of Family Practice. He served many years as a Selective Service Board examiner and was awarded a congressional medal for that service during World War II.

Eugenio N. Tan, M.D.

Dr. Tan, 67, a retired Bedford anesthesiologist, died June 17 at his home.

He received his M.D. degree in Manila in 1940.

Dr. Tan had practiced at the Edgewood Clinic in Bedford from 1970 to 1980. He was a member of the American Society of Anesthesiologists.

Mark G. Erehart, M.D.

Dr. Erehart, 90, a retired Huntington physician, died April 29. He lived in Melbourne, Fla.

He was a 1919 graduate of Case Western Reserve University School of Medicine, Cleveland, Ohio. He moved to Florida when he retired from practice in 1960.

Dr. Erehart served several years as secretary of the Huntington County Medical Society. He became a member of the ISMA Fifty Year Club in 1969.

Memorials: Indiana Medical Foundation

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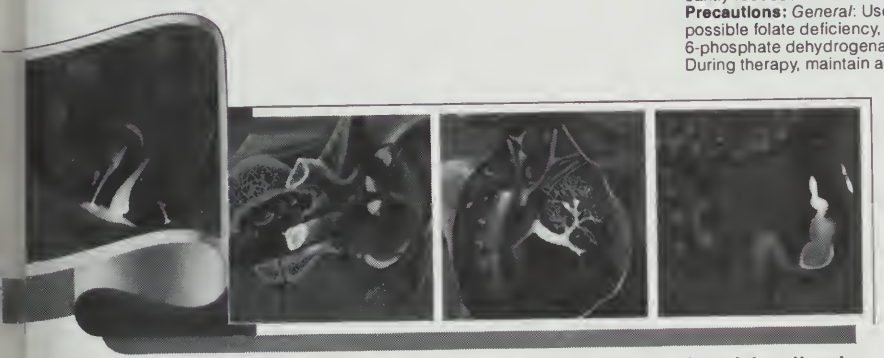
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Bactrim™
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Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

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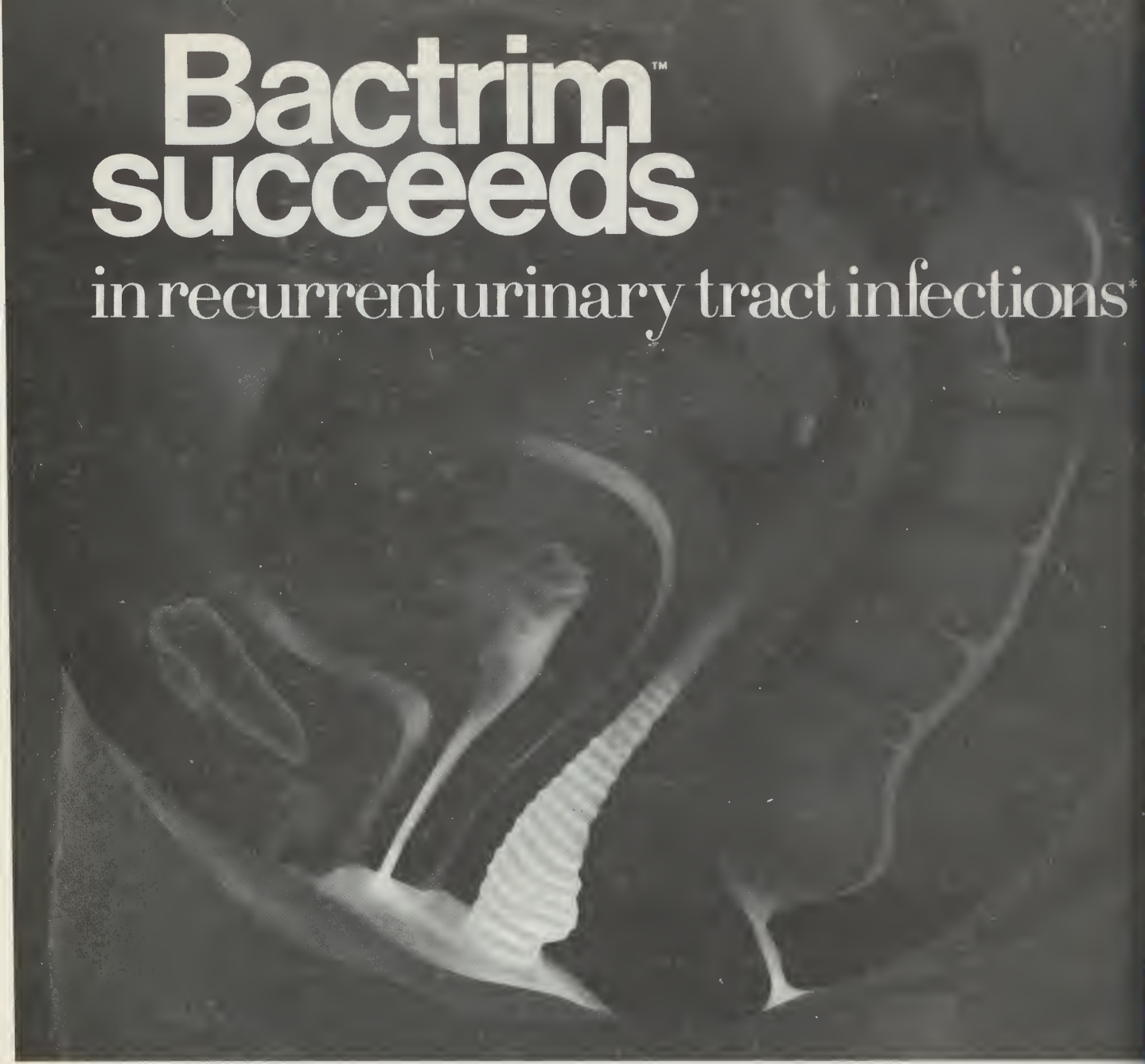
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faster relief of diarrhea than with ampicillin[2]

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Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.
For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media st any age.
For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.
For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.
Also for the treatment of documented *Pneumocystis carinii* pneumonitis.
Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.
Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.
Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.
Pregnancy: Teratogenic Effects: Pregnancy Category *C.* Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.
Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea, pseudomembranous colitis and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.
Dosage: Not recommended for infants less than two months of age.
URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:
Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.
Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.
For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.
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Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.
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Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.
Supplied: *Double Strength (DS) tablets*, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets*, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

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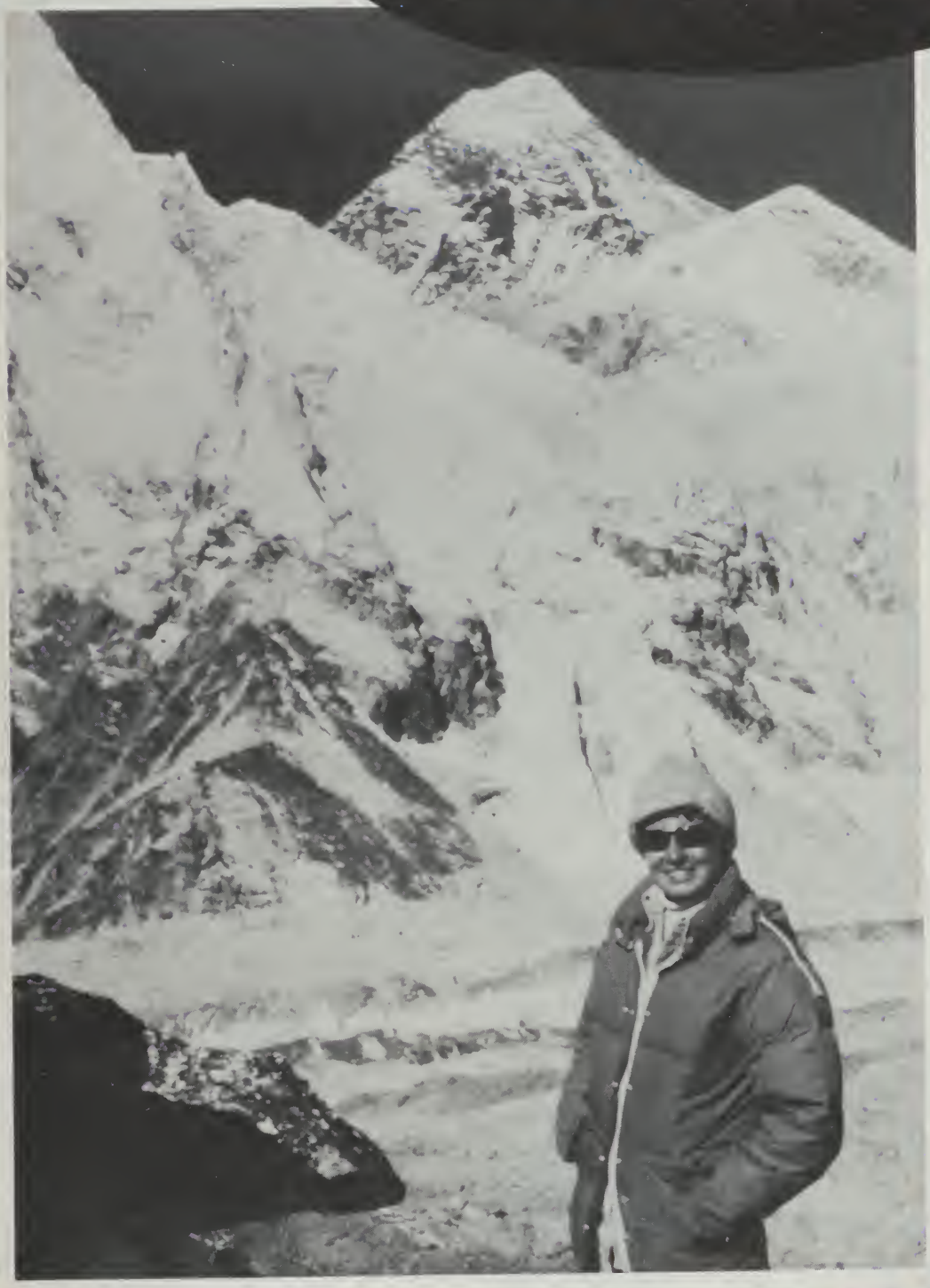
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Please see previous page for summary of product information

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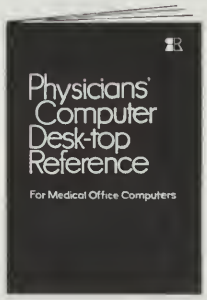
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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

The following article is from page 1 of *The Indianapolis Star,* July 9, 1906:

CUTS MAN'S THROAT
TO SAVE HIS LIFE
Surgeon In Emergency Proceeds Without Customary Appliances or Anesthetics
WIFE OF SUFFERER ASSISTS
Tip of Syringe, Used Instead of Silver Tube, Ends Choking.

His life saved at the last gasp by heroic measures adopted by Dr. Goethe Link in slitting his throat, and inserting in his windpipe a hard rubber tube, Joseph H. Clarke, deputy county recorder and formerly deputy in the Office of State Inspector of Factories, is now breathing quite naturally through a silver tube, and is believed to be out of danger.

Shortly after two o'clock yesterday morning Dr. Goethe Link received a telephone call to the home of Mr. Clarke, at 1815 Woodlawn Avenue, the message being that Mr. Clarke was choking. Believing him to be suffering from an attack of asthma, or some kindred affection, Dr. Link took only his case of ordinary surgical instruments and drugs.

When he arrived there, however, he found that Mr. Clarke's condition was very critical, and that he was literally choking to death. A sort of abscess had formed around the tonsils, and was rapidly swelling his throat shut, cutting off the air from his lungs.

Mrs. Clarke, together with a neighbor and his wife, were in the room working with Mr. Clarke. Not having the proper drugs at hand for treating the affliction, Dr. Link dispatched the neighbor to a drug store to procure them, but all the drug stores in the neighborhood being closed, he did not return for a considerable length of time.

Death at Hand

Meanwhile Mr. Clarke began to get black in the face and to show signs of convulsions, due to carbonic acid gas, and similar to those exhibited by a hanged man. Dr. Link saw then that the most strenuous measures were necessary to save his life.

Not having a silver pipe at hand, he took the hard rubber tip off a syringe and whittled it down to the proper size. He then took a surgical knife and asked Mrs. Clarke to hold the head of her husband while he performed the operation. Though almost sick from fear, and from nervous tremors, Mrs. Clarke faced the ordeal heroically. Mr. Clarke, who was now undergoing the convulsions that had been threatened a few moments before, had lost consciousness.

Knowing that time was too valuable to waste any of it in chloroforming the patient, Dr. Link, with the sharp knife, delicately slit the throat immediately below the vocal cords, cut open the windpipe and inserted the hard rubber tube.

Mr. Clarke had then ceased breathing, but with a pump Dr. Link filled his lungs with pure air and, after a few artificial inflations and deflections, respiration was again set up, and a few minutes later he recovered consciousness and was breathing freely.

Substitutes Silver Tube

Later in the morning Dr. Link removed the temporary tube of hard rubber and inserted a silver tube. Yesterday afternoon Dr. Link said Mr. Clarke was resting easily, and that his breathing was quite natural. It was impossible for him to talk, however, since he was breathing below the vocal cords, and when he attempted to say anything he could utter no sound, since all of the air went out the tube. He said that the operation had been successful, and that in a week or so he thought Mr. Clarke's throat would be sufficiently healed to allow the removal of the tube, and the resuming of natural respiration.

"The case is a very unusual one," said Dr. Link. "Often we have to perform a similar operation upon children for bad cases of diphtheria, but so uncommon is the operation upon grown people that it is difficult to obtain silver tubes large enough. I have been handicapped before, but never so completely as in this case. Without a trained assistant, and without the proper instruments for performing the operation, things looked dubious for a little while."



The modified syringe tip used by Dr. Link is illustrated on this page. It had been stored in a little leather pouch over the years, and was among the items given to the Museum last year by Mrs. Link.

WHAT'S NEW?

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

Abbott Laboratories has a new electronic device that will automatically regulate the flow rate of intravenous fluids and drugs while providing a variety of monitoring capabilities. The device, called the LifeCare 1000 Controller, can be used in conjunction with most standard Abbott IV administration sets. Electronic control of flow rates is more accurate than that obtained by manual control devices.

Del Mar Avionics has introduced a new recording system designed to monitor and record 24 hours of continuous ECGs for as many as 12 ICU/CCU patients simultaneously. Designated Model 412, the instrument provides permanent storage of up to 26 hours of continuous single-lead ECG. The unit operates from standard AC-power.

Health Science Consortium announces a new training system, "Telephone Skills for Medical Office Personnel." It consists of five audiocassettes, instructor's guide and 10 student workbooks. The program is suitable for group or individual study, and can be used in a private office, group practice, clinic, classroom or workshop. It can be given as a course by instructors or may be used by an office staff group.

New Scotchcast Reinforcing Strip from 3M's Orthopedic Products Department is designed to reinforce Scotchcast casts in areas subject to particular stress, such as the heel and ankle of a weight-bearing leg case or the elbow of an upper arm cast. Twice as strong as the casting tape, the Reinforcing Strip allows less material to be used—as much as one roll less casting tape for a short-leg walking case.

Abbott Laboratories has published an educational monograph on the subject of rubella. Entitled "Laboratory Advances in Rubella Diagnosis," it is available free in limited quantities by writing to Abbott Laboratories Diagnostic Division, Abbott Park, North Chicago, Ill. 60064, or by phoning toll free 800-323-9100.

Amko announces the new Jarcho self-retaining insufflation cannula for tubal patency testing. Made of stainless steel, it can be used with two tenacula. It features a rubber acorn and stopcock.

Technicare Ultrasound has introduced a new Ultrasound Sterile Procedure Kit, which provides the capability of fine needle removal of tissue for biopsy and for punctures of renal cysts. The kit also allows ultrasonic visualizations during operative procedures. It comes with 24 or 96 needle guides and sterile probe covers.

Davis & Geck has introduced an improved model of its APPOSE™ disposable skin stapler. APPOSE is a disposable, automatic feed, sterile, preloaded, forward release skin stapler. It has a new center line guide, a new cam mechanism that prevents the staple from being released until it is fully formed, and a new device that tightens and accurately forms the individual staple's box shape.

The 3M Company has the Steri-Drape Arthroscopy Fluid Collection Pouch No. 1005, which adheres firmly to the leg and collects irrigation fluid without interferring with the surgeon's work. A spout at the bottom of the pouch channels the fluid to a drainage system, keeping gowns and shoes dry.

Parke-Davis is introducing an enteric-coated aspirin in tablet form. The tablets will contain 15 grains of aspirin. The enteric coating prevents dissolving until the tablet reaches the intestine, thus sparing the gastric mucosa from aspirin irritation. The product is named Easprin.

The "1982-83 Directory of Medical Films, Audio-Visuals and Medical Education Resources," which lists the titled educational aids in the Norwich Eaton Audio-Visual Library, has just been released. A copy of the directory may be obtained from a Norwich Eaton representative or by addressing the company at 17 Eaton Ave., Norwich, N.Y. 13815.

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ABOUT THE COVER

Polly G. Nicely, M.D., an Indianapolis physician, is dwarfed by Mt. Everest. Here, she stands on Kala Patar at 19,000 feet, while the peak of Everest (behind her) juts to 29,028 feet. Her tale of a visit last year to a Mt. Everest Base Camp begins on page 704.

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LETTERS

Hospital Costs: 'Thanks for the Memories . . .'

Recently, I read the guest editorial entitled "High Hospital Costs" by L. A. Arata, M.D. in the June 1982 issue of THE JOURNAL and shared the author's concern with the rise in hospital costs, although I did not necessarily agree with his conclusions.

Dr. Arata's remarks conveyed a sense of nostalgia that caused me to reflect on an era in medicine and hospital care that can accurately be characterized as less complex and more personal. I recalled, for instance, our family's routine on Sundays in the late 1940s when, after church, we would accompany my father while he made "house calls." He carried much of his "medical armamentarium" with him in a black medical bag that was seemingly as much a part of the car as the seat covers.

It was in 1964 that I was initiated into the world of hospital management as a fledgling administrator. This was a time just prior to the period when, according to Dr. Arata, "the organization of hospitals changed . . . and administrative personnel multiplied almost like rabbits."

Let me briefly share some of my memories of those less costly days of hospital care:

1. Registered nurses were paid $2.50 per hour and aides made $1.25.

2. Respiratory therapy, known then as inhalation therapy, consisted of an RN making her rounds with an 0_2 tank mounted on a cart.

3. Current diagnostic tools such as ultrasound, multi-channel chemistries, gamma cameras, radio-immunoassay, computed tomography, pulmonary function, and a host of others were either in their infancy or as yet undiscovered.

4. Medicare, along with its mountain of attendant regulations and extensive cost reporting requirements, coupled with an inadequate cost-based reimbursement package, was still merely a glimmer in the eye of a Washington legislator.

5. Hospital managers carried out their duties unencumbered by the pressures of: minimum wage laws; EEOC; fair labor standards; age, race, and sex discrimination issues; OSHA; and a multitude of other social, regulatory and/or governmental agencies and concerns.

6. Malpractice was something that only seemed to happen occasionally in California or New York.

7. Unions were organizations that steelworkers and garment makers joined, but certainly not hospital workers.

In a word, life in the hospital business was simpler, generally slower-paced, less complex, and in many respects more enjoyable and personally rewarding. Chances are Dr. Arata is practicing medicine differently today than he did in the 1950s and 1960s, just as hospitals operate much differently than they did during that period.

Unfortunately, there are costs associated with improvements in technology, conformance to regulation, and general economic inflation. Whether those costs, from Dr. Arata's perspective, are primary or secondary is im-

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aterial. They are the real costs of roviding health care services in the orld of the 1980s. But, as the old re-ain goes, Dr. Arata, "Thanks for the emories . . ."

John R. Birdzell
Associate Administrator
St. Margaret Hospital
Hammond, Ind.

he Author Responds

My thanks to Mr. Birdzell for his very houghtful comments. My essay did vhat I wanted it to do: stimulate some hinking.

As Mr. Birdzell points out so well, so nuch of escalating hospital costs are caused by government regulations. An-other large piece of increased hospital and medical costs can be laid at the doorstep of the litigation-minded pub-lic, and the tremendous additional costs of "defensive" medical-hospital prac-tice.

Actually, aren't we all now practicing legal-judicial medicine instead of patient welfare medicine?

L. A. Arata, M.D.
Shelbyville, Ind.

Praises ISMA's Commitment to Membership Efforts

(This letter was addressed to Donald F. Foy, ISMA executive director.)

I would like to express our appreciation for your promotion of membership in general and the AMA in particular in the June 1982 issue of THE JOURNAL. During my last visit to ISMA, I had the pleasure of meeting Marty Badger (Managing Editor). His help has included using our materials as well as giving me several good ideas about using journals as a membership tool.

Marty, Rosanna Iler and Mike Huntley have been excellent partners in the membership effort. The June issue of THE JOURNAL is just the latest example of ISMA's commitment to Federation membership, for which the AMA is most appreciative.

Terence J. Nugent
Dept. of Membership Development
American Medical Association

The V.I.P. Program

A statement concerning the loss of over $400 million last year by Blue Cross-Blue Shield appeared in the July 1982 issue of *ISMA Reports.*

It is my opinion that the V.I.P. Program which the Blues have proposed in Indiana is simply one step short of socialized medicine run by the government.

If the Blues look around for somebody to bail them out, it is quite possible that the government may buy the companies; that would be the final step.

J. Neill Garber, M.D.
Indianapolis, Ind.

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Physician Involvement in Health Care Costs



LAWRENCE E. ALLEN, M.D.
Speaker, House of Delegates
Indiana State Medical Association

TRADITIONALLY, physicians have committed themselves to the challenge of providing quality care. We have sought to preserve the physician-patient relationship as the most unique example of man caring for man. We have unrelentingly fought to defend this relationship against all who would seek to come between the patient and the doctor—and there have been many. Where physicians are concerned, intervention by intermediaries, reviewing agencies and governmental regulators offers neither quality assurance nor economic health care delivery.

Physicians now are being asked to respond to the alarming results of economic forces that have been operational outside the scope of physician influence and, to some extent, physicians are being asked to take primary responsibility. This alarming crisis is related to the staggering increase observed in health care expenditures.

Last year alone health care spending increased 15.1% to reach a level of $287 billion, or 9.8% of the gross national product. Critics of physicians have characterized this as a "doctor problem," stating that physician fees are too high and, moreover, that physicians control over 70% of utilization.

In August I testified on behalf of the Indiana State Medical Association before the Interim Legislative Study Committee on Health Care Costs on this subject and wish to share with you some of the facts from my testimony.

In the first instance, physicians' fees have not shown an inordinate increase, but rather have fallen behind the inflationary trend. Since 1975 physicians' earnings have increased an average 8.7% per year, while practice expenses have been increasing at 11.8% per year. Thus, physicians' real earnings have actually declined.

The most significant contributing factor to increasing health care costs is general inflation. Richard S. Schwieker, secretary of the Department of Health and Human Services, said recently that three-fourths of the 1981 cost increase resulted from inflation.

A look at how the health care dollar is spent readily identifies that hospital care represents 40% of total expenditures, while 19% is paid to physicians. Last year, hospital costs increased 17.5%. Physicians have had little to say about what hospitals charge for various services.

Physicians also are not singularly controlling utilization of medical services. The forces driving utilization are multiple, but certainly increased first dollar insurance coverage has lessened a cost consciousness for the consumer requesting services.

The experience of funding for Medicare-Medicaid typifies the increased utilization and expenditure predicted by physicians at the conception of the program in 1967. Last year alone, Medicare costs increased 21.5%. The growing ratio of elderly people in our population will continue to increase utilization each year. Per capita expenditures by those 65 and over are 3.5 times greater than those under age 65.

Rising health care costs are a major concern to industry, government, third-party payers, as well as physicians—merely assigning responsibility will not diminish the problem. Efforts to deal with escalating costs range from suggested elimination of first dollar insurance coverage, and initiation of consumer cost sharing, to the development of business-medicine coalitions to effect cost efficient changes. Such coalitions have been formed in Columbus, Muncie, Kokomo, Elkhart, Terre Haute and northwest Indiana.

Physicians are vitally needed in the decision-making process affecting health care at all levels. Willingness of physicians to provide this leadership, and the opportunity to do so, will represent the only long-term solution of any value if we are to provide quality care within reasonable public and private resources.



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Defining 'Medical Costs'

Guest Editorial



L. A. ARATA, M.D.
Shelbyville

JUST WHAT ARE these high Medical Costs we hear so much about these days? I tried to turn off the propaganda and ponder a few ideas. Included in "Medical Costs" are nearly the entire budgets of the Nursing Homes industry of our country.

I had a neighbor and friend who grew older, prior to her death (not an unusual circumstance). For several years, she lived at home, paid her food, home, clothing, medical, lawn-care and other household maintenance expenses, as well as real estate taxes. During this time, her medical care costs consisted of a few small-dollar amounts for her digitalis and diuretics, plus an occasional house call—perhaps five or six a year. Her medical costs totaled probably less than $250 per year.

Eventually, she became too old and infirm to care for herself and ended up in a nursing home. At this point, her care became entirely "Medical Costs." Her true medical needs remained stable, but now the cost of her food, shelter, lawn keeping and housing had escalated to $20,000 per year, all now charged to Medical Care, representing an 800% increase! This appears to me to be a phony statistic: The patient needed babysitting services, not medical services, and the medical care statistic should be corrected.

It seems obvious that the Medicaid program is a frightfully expensive burden on the taxpayers, and that one-half of all Medicaid dollars are spent on the "babysitting" care provided by the Nursing Home industry. Allocating this horrendous expense to some other part of the Medicaid or Welfare program would not cost the taxpayers any less money, but it would give a more accurate statistic of the total cost of Medical Care.

Since fairness, accuracy, good sense, and good judgment are attributes rarely found, expounded, or demonstrated by the Pirates of the Potomac or by the Fuzzy Thinkers of Foggy Bottom, I suppose that we in the Medical Care Complex must continue to take their abuse about the high costs of Non-Medical as well as Medical Care, USA.

* * *

I am old enough to remember the mid 1960s; perhaps some of my readers also will remember the pronouncements and the propaganda put out by the President of the USA, the Pirates, and the Fuzzy Thinkers of that day relative to the cost to taxpayers of the Medicare program.

President Johnson proclaimed over and over again that it would cost the taxpayers only "a few cents a day" and that the cost would be only about "the cost of a package of cigarettes a day." The Medicaid program was attached to the Medicare program and passed by the Pirates without debate or concern about its cost.

All of which reinforces my firm conviction that it makes no difference how costly a product or service may be; the Pirates and their cohorts can quickly make it so expensive that the taxpayers cannot afford it.

Share your opinion—either in a Letter to the Editor or in a Guest Editorial. Write Editor, THE JOURNAL, 3935 N. Meridian St., Indianapolis, Ind. 46208.








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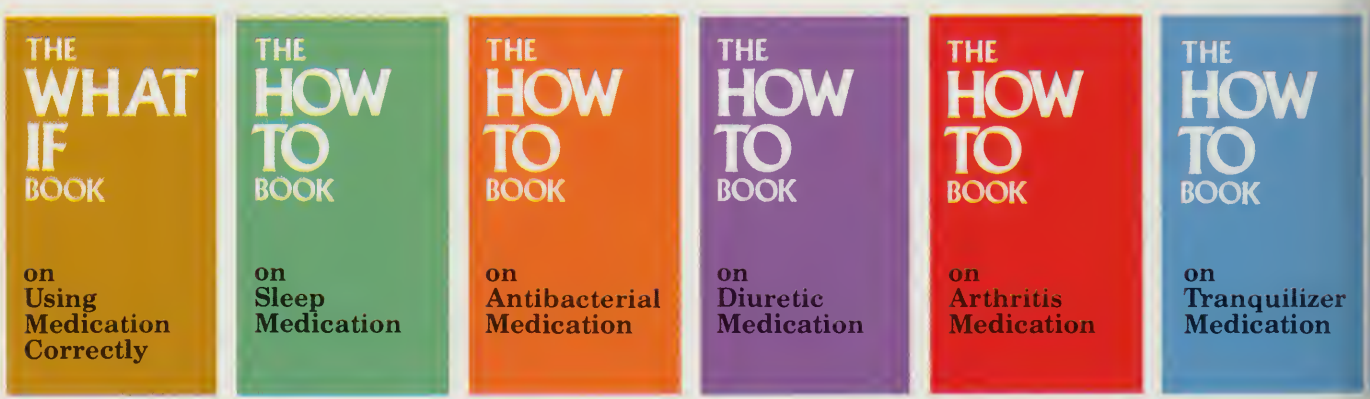
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Will Residency Programs Survive?

Guest Editorial

DAVID A. SMITH, M.D.
Medical Editor
Pennsylvania Medicine

GRADUATE MEDICAL EDUCATION, the time spent in residency training, is a financial no-man's-land between medical school and postgraduate medical education. Undergraduate medical education, the university-based phase of physician preparation, is financed in part by students through ever-increasing tuition. Postgraduate medical education, the selective, short-duration programs attended by practicing physicians, is financed by the registrants. Graduate medical education has no such firm financial base. It is this fiscal uncertainty that signals a crisis for residency programs.

Graduate medical education is an inseparable combination of education and service, like on-the-job training, for the resident. It is now generally conceded that the medical school graduate needs additional training through supervised patient contact to become skilled in his or her chosen field. In 1950, the *Journal of the American Medical Association* reported that there were 17,490 residents in 27 specialties. As of Sept. 1, 1980, there were 61,819 residents in 36 specialities in the United States. During the 1970s, the trend was toward superspecialization which required more educational experience and study in the subdivisions of medicine. For the 1980s, it appears that the trend toward funding primary care specialties is diminishing, but the time required in these residencies has increased from the old one-year rotating internship to multiple year programs of graduate training.

With the length of graduate medical education now required by the specialty boards for board eligibility, sources of financing for already heavily indebted medical students seeking residency programs had to be sought. The result has been a rather haphazard arrangement for payment, called salary or stipend, conference time, visiting professors, teaching staff remuneration, or ancillary support services.

Currently, more than 75% of money for resident education programs comes from general hospital funds through the third party payers, such as Blue Cross, Medicare, and Medicaid, for the services rendered by residents in their training. The remainder is recovered through a *pot pourri* of state, federal, Veterans' Administration, National Institutes of Health, and medical school sources. (Knapp, RM *New England Journal of Medicine* 301: 749-755, 1979).

The growing problem for graduate medical education has been the move by hospitals toward cost containment which was initiated in response to the public demand for controls on spiraling medical care costs. The efforts of hospitals at cost containment have victimized the teaching hospitals whose charges, length of stay, and use of diagnostic tests are traditionally higher than those of non-teaching institutions.

A comparison between the patient populations on the teaching and non-teaching floors at the Wilmington Medical Center in Delaware revealed that although the two groups of patients were comparable within reasonable limits, service charges to patients on the teaching floor were significantly higher ($870.51) than on the non-teaching floor ($556.04). Service was defined as laboratory, x-ray, central supply, medication, electrocardiograms, respiratory therapy, etc. Laboratory studies showed the greatest disparity, $355.16 to $134.23.

The authors concluded that "(o)n a busy short-term, acute-care medical floor it appears that residents and medical students deliver care that is comparable with the care given by experienced practicing physicians as measured by mortality and length of stay. However, they achieve this at a greater cost to the patient, largely as a result of an increased volume of laboratory tests, and a lesser increase in supplies and x-rays." (Marte, EW *Journal of Medical Education* 53: 383-6, 1978) Other studies before and since have confirmed these observations.

Teaching hospitals, because of cost containment policies, face economic difficulties in future support for teaching programs. The resident education programs will be forced to compete with other (possibly more easily cost-recoverable) services for ever shrinking funds and will likely experience serious financial pruning. HMOs and for-profit hospitals that are meeting the public demand for less costly medical care do not want the financial burden of education programs. Yet the public insists on high quality, optimally trained physicians. By pursuing lower costs in health care to the total exclusion of graduate medical education we very well put an end to quality medical practice as we know it today.

Improvements in or financial alternatives to the present system need to be sought.

Reprinted by permission, *Pennsylvania Medicine*, July 1982.

Medical Care for Senior Citizens

Guest Editorial



LESTER D. BIBLER, M.D.
Indianapolis

AN ESTIMATED ONE-FIFTH of the American population falls into the "senior citizen" category. With the increasingly longer life expectancy, we can expect to have even more seniors around in the future.

Today, many senior citizens—representing a potentially volatile political force—are very concerned about their financial future. Because of inflation, they see price increases threatening them from all directions. Although all consumers are barraged by seemingly endless increases—particularly in the cost of food, housing and clothing—the senior citizen especially is affected because of his need for and the cost of care.

Every senior citizen should have "continuity of care." Each should have a personal physician or "health manager"—one who knows the patient and one with whom the patient feels comfortable. A personal physician should be kind, neat, knowledgeable and active in his profession. The patient, in turn, should trust the physician and cooperate with him; if the patient cannot do so, he should so advise the physician and then find a new one. If the physician makes house calls, so much the better, but patients should not abuse the privilege.

Senior citizens who have reached the age of 70 and above are very fortunate. These individuals have come from good stock and protoplasm. They are lucky to have survived not only the rigors of civilization but also world wars and "police actions." They are first-class citizens, entitled to courtesy and respect.

A few years ago I requested consultation for an 82-year-old patient. After a few questions, the consultant asked the patient, "What do you expect after 82 years?" The consultation was a failure. Let us be fair and patient with our sick senior citizens.

Senior citizens can be classified into three categories: dynamic, kinetic and static.

- The dynamic individual is active, participates in civic affairs, socializes and is a good neighbor.

Reprinted with permission from the *American Medical News*, Aug. 6, 1982.

Dr. Bibler served on the AMA Board of Trustees from 1963 to 1968. He is the immediate past president of the Fifty Year Club of American Medicine and is a director of the American Assn. of Senior Physicians.

• The kinetic individual may have all of the above characteristics but be restless. He likes to travel, participate in tours or engage in other activities.

• The static individual usually has mental or physical impairments that require custodial or medical care, including physiological and supportive therapy.

If possible, senior citizens should stay "dynamic." They should enjoy their retirement, friends, family and hobbies.

As indicated previously, the financial burden on senior citizens often is crippling. In 1925 a hospital bed cost between $3 and $5 per day and included food, nursing care and clean sheets. In contrast, a recent survey* showed that the average cost to community hospitals to treat a person in 1980 was $245.60, and 84% increase over 1975. On a state-by-state basis, the average cost per day varied from a low of $160.20 to $409.

True, physician fees have increased over the years—but generally not at the same rate as those of hospitals. Hospital, professional, nursing home, and ancillary groups need re-evaluation before the inflation bubble bursts.

A special financial burden falls on some seniors who are "static" and confined to their home if they have family, relatives or special help to take care of them. For those who do not have this benefit, the alternative is nursing home care—preferably approved by the state and satisfactory to everyone concerned.

Nursing home care is expensive, however. Often, the patient's estate is depleted, and the patient therefore must look to Medicaid for help. Regardless, it is important that all static patients be provided with appropriate care—to include provisions for breakfast, exercise, naps, etc.

Many senior citizens are making less frequent calls to their physician's office. There is less traffic in the emergency room because of high cost, the increase in unemployment, and loss of health insurance. In our present economic state, aggravated by inflation and recession, people are resorting to domestic home care—that is, taking better care of themselves with less risk and exposure to the elements or to accidents.

Let up hope for a better future . . . .

* Health Insurance Institute, *Source Book of Insurance Data*, 1981-82, Washington, D.C.

Cambridge Diet Warning

Editorial

The Cambridge Diet is viewed with alarm by the American Dietetic Association—and with good reason. The diet consists of a powdered milkshake-like formula which contains a daily intake of 330 calories with 75% of the FDA standard intake of protein and 100% of the standards for minerals and vitamins.

The association feels that the diet may be useful in treating severely obese subjects but only as an alternative to surgical measures on the G.I. tract.

For the majority of American dieters the extremely low calorie diet does not address the patient's main problem—poor eating habits. Quick weight loss has an allure but leaves the subject with the necessity of establishing a proper diet with the proper eating habits.

Walter Winchell said it well: "Fad diets are the bunk. All food is fattening. Everyone should eat a balanced diet. Those who wish to lose weight should eat less of it."

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Mt. Everest Reveals Its Secrets to Medicine and Science

A Report on the 1981 American Medical Research Expedition to Everest (AMREE) and a Trek* to Its Base Camp

POLLY G. NICELY, M.D.
Indianapolis
JUDITH K. CHILDERS, R.N.
Colorado Springs, Colo.



*Trekking is the act of walking to places where means of modern transportation are not ordinarily available for the purpose of viewing different objects of natural beauty and places of cultural importance.

Leadership: John West, M.D. (leader), John Evans (climbing leader), F. Duane Blume, Ph.D. (logistics leader).

Climbers: Steve Boyer, M.D., David Graber, M.D., Peter Hackett, M.D., Dave Jones, Chris Kopczynski, Jeff Lowe, Chris Pizzo, M.D., Glenn Porzak, Frank Sarnquist, M.D., Robert Schoene, M.D., Michael Weis.

Scientists: Sukhamay Lahiri, Ph.D., Karl Maret, M.D., James Milledge, M.D., Rick Peters, Robert Winslow, M.D.

Acknowledgment: A portion of the photographs are courtesy of AMREE. Photo reproductions are courtesy of Media Services, St. Vincent Hospital and Health Care Center, Indianapolis, Ind.

IN PREVIOUS YEARS the goal to reach the summit of 29,028-foot Mt. Everest was acclaimed as an end in itself. In October 1981, however, that accomplishment took second place to the higher goal of achieving altitude-related medical and scientific research.

The American Medical Research Expedition to Everest (AMREE) was only a dream in the 1960s and 1970s, but came to fruition under the organization of pulmonary expert John B. West, a professor of medicine at the University of California in San Diego. He handpicked a team of 19 members, including 10 physicians and four scientists.

The primary objective of AMREE was to study short- and long-term effects of high-altitude conditions as well as individual variations in adapting to them. They were to obtain the first physiological measurements of heart and lung function at altitudes between 24,000 and 29,000 feet.

Through the use of highly sophisticated mineraturized scientific instruments pioneered by Dr. West, expedition scientists were able to monitor the heart rate, blood pressure, oxygen consumption and other physiological functions of individuals climbing at these extreme elevations. Many heart and lung diseases cause a level of oxygen as low as it is on Everest. There is considerable parallel between man's efforts to compensate for the hypoxia of high altitude and for the threat of lung-induced hypoxia at sea level. Therefore, making such measurements on man under the most severe conditions of low oxygen encountered on earth would be of great practical value in understanding many cardiopulmonary conditions.



Shaded area indicates the Himalayan Mountain Range.

In addition to cardiovascular criteria, blood changes, sleep patterns, metabolic processes, and mental functions were monitored in expedition members. The endeavor cost about $750,000, with major contributors being the National Heart, Lung and Blood Institute (NIH), the American Lung Association, and the National Geographic Society. Private firms donated most of the food and equipment.

The 19-member team, with the aid of 40 Sherpa guides, toting close to four tons of scientific equipment, set off in early August 1981. Starting near Kathmandu, the capital of Nepal, they made the 175-mile trek to their base camp site at the foot of Mt. Everest (17,600 feet), where the Himalayan mountains are the most spectacular in the world.

Our participation and involvement in his expedition came about by our personal desire to support such an effort by trekking to the base camp to visit our mutual friend-climber, Glenn Porzak. We also desired to see the expedition in the progress of their activities as well as to ultimately increase our own knowledge of high altitude physiology and mountain medicine in Nepal. Many expeditions like AMREE offer "support treks" to their base camps to provide opportunity to support their ventures emotionally, physically and monetarily. The AMREE trek attracted 19 participants (nine doctors and two nurses). Ages ranged from 19 to 69, and homelands included three foreign countries as well as the U.S.A.

Our average trek day consisted of walking five to 10 miles up and down with elevation gains and losses approaching 4,000 feet. Elevation ranged from 2,000 feet in the lowlands of the Kathmandu Valley to our highest altitude of 19,000 feet at the summit of Kala Patar, five miles from Everest Base Camp. This equaled an ascent of 43,000 vertical feet in 21 days. Therefore, we had opportunity to see the exotic Hindu hill villages of Nepal amid lush subtropical scenery in contrast to the high altitude Buddist culture of the Khumbu Valley near Mt. Everest. Meals, tents and portage were provided by our delightful Sherpa guides and porters.

Enroute to Base Camp we participated in studies of our own regarding personal health and the effects of altitude. A graph was kept of pulse, respiration and symptoms. One physician also kept an accurate ventilatory study on 14 trekkers using a Wright Respirometer, noting resting respiratory minute volume, vital capacity and peak expiratory flow rate. A summary of their response to hypoxia and to elevation concluded the following: a. Life at high altitude with normal lungs in many ways parallels life at sea level with severe lung disease. b. Subjects with a brisk ventilatory response to hypoxia had fewer symptoms of high altitude sickness. c. There may be short-term benefits in pharmacological manipulation of ventilatory drive in short-stay dwellers at high altitude.[1]



Authors Polly Nicely, M.D. (left), a family physician with a special interest in sports medicine, and Judy Childers, R.N., who has a special interest in high altitude physiology, chat with climber Glenn Porzak.

Just being in Nepal is hazardous to your health. Trekkers and climbers are particularly subject to a multitude of health problems, and attaining summits often depends on their ability to survive these maladies. Helicopter rescue is very expensive, if not impossible in most instances. "Eating in Nepal is like playing Russian roulette with a one-shot derringer: You always lose."[2] All drinking water must be boiled and treated with iodine. Diarrhea, gastroenteritis, dysentery— the "revenges"—as well as Shigella, Giardia and worms are common. Exposure to diseases such as hepatitis, TB, malaria, typhoid, cholera and yellow fever make pre-trip immunization and drug prophylaxis mandatory. Other contemptible problems are blisters, minor infections, injuries, and the infamous leech. (Leech wounds bleed profusely from an anticoagulant substance injected into their victims.)



Sections of laboratory module being carried to Base Camp. Four tons of scientific equipment was hand-carried.

While trekking, the group also became aware of the overwhelming health problems of the Nepalese people. Diseases and conditions long ago controlled or eradicated in the West prevail there. Goiter, TB, glaucoma, congenital deformities, parasitic diseases, infections and injuries are only a few. There is virtually no dental care in Nepal, and 75% of the nation's 14.5 million people never see a physician in their lifetime. Needless to say, these wonderful, humble people have a shortened lifespan of about 35 years. Our health officer could only scratch the surface of their needs by distributing antibiotics, other medicines, and supplies along the trail. They could not possibly understand how an oral pill could cure the cellulitis in their foot!

As we climbed higher in the Khumbu, we all had first-hand experience in the acclimitization process, taking seven days to reach Base Camp (17,600 feet) from Namche Bazar (11,300 feet), pausing for one day's rest in between.



Chris Pizzo, M.D., takes alveolar gas samples on summit of Mt. Everest.



Main Base Camp laboratory.



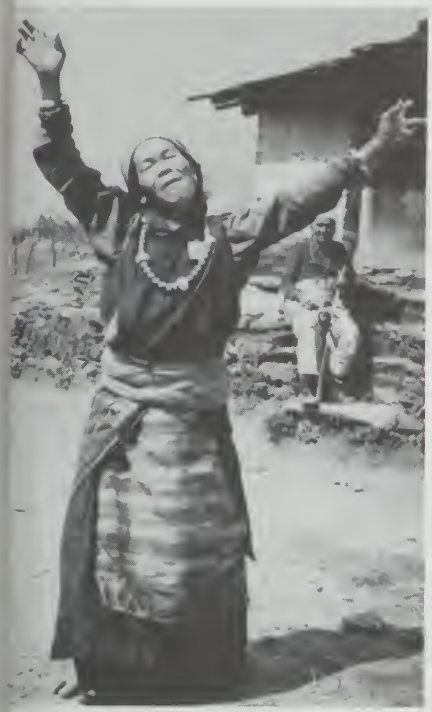
Traversing the Khumbu Icefall.



Base Camp dwarfed by Khumbu Icefall.



Porters carry 70-pound loads.





Congenital deformity in Napalese woman (left and above).



The infamous leech.



Trailside consult for Napalese child.



Removing nits is a necessary task.



Prep for I&D of Napalese porter.

We averaged a 1,000-foot elevation gain per day above 10,000 feet—the maximum recommended by Hackett.[3]

High altitude symptoms varied from person to person, from minimal to moderate. Common symptoms are headache, anorexia, nausea, dehydration, dizziness, shortness of breath, weakness, weight loss, insomnia, confused thinking, lassitude, dry cough, sore throat and bronchitis. Overexertion and going high too fast, too soon, expecially above 14,000 feet, can cause more severe symptoms of AMS (Acute Mountain Sickness). These include severe headache, ataxia, facial edema, chest tightness, decreased urinary output and vomiting. AMS can progress to high altitude pulmonary edema (HACE) and cerebral edema (HACE)—not discussed here. Yearly in Pheriche (14,000 feet) at the Himalayan Rescue Association Aid Station, 20% of all trekkers require some treatment for AMS.[4] There is controversy as to whether Diamox is effective for other than causing "singing tent zipper" at night. The best preventive for AMS is to ascend high slowly, hydrate, and sleep low. Conditioning is probably not a factor.

One of the authors (P.N.) personally became a victim of AMS while climbing Kala Patar (19,000 feet). On the ascent, I developed a severe headache which was not relieved by the descent to camp at 17,000 feet nor with codeine or Diamox. In the next 24 hours symptoms progressed to nausea, vomiting, weakness and dehydration. Within 36 hours, I was incapacitated with the headache. Treatment was initiated consisting of oxygen at 4 liters per minute, gradually reduced over a 25-minute period, which relieved the headache only partially. Demerol and phenergan 25 mg each was then administered IM. I decided to walk out groggily rather than ride on the back of a yak. Three hours later and 2,000 feet lower I recovered spontaneously, proving that the best treatment for AMS is descent, descent, descent.

Our arrival at Base Camp was welcomed by the climbers and scientists. On August 30, the group had established

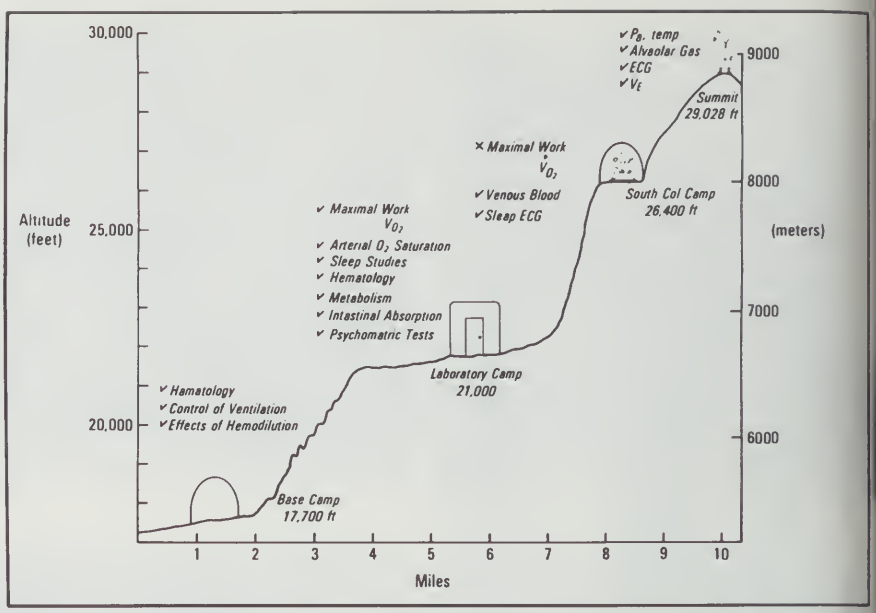


Diagram shows which of the planned physiological measurements were carried out (indicated by check marks) and which were not (crosses). P_B=Barometric Pressure.

their base camp and begun scientific studies. Their first task was traversing the Khumbu Icefall, a moving glacier constituting the most hazardous part of the climb. Above that cascade of ice blocks, they set up the first of four high camps at 21,300 feet and did extensive testing there. Then they pushed on through intermediary camps to the last at the South Col (26,400 feet), the site of more testing.

At the time of our visit, two-man teams were preparing to make summit bids from this camp. However, the jet stream dropped, and gale force winds of 150 miles per hour and temperatures of −36 degrees Fahrenheit turned back the attempts of three teams during the next 10 days. (This storm claimed at least four lives on other mountaineering expeditions in Nepal.) In fact, we were back in the U.S. when we learned via newspaper that three climbers and two Sherpas had reached the top of Mt. Everest in three summit bids. All used oxygen for the final 2,600 feet. The first direct measurement of barometric pressure on the summit was obtained, and alveolar gas samples were also collected there. A frisbee was even launched into Tibet!

AMREE was termed a complete success. The extensive science program was carried out. Five people reached the summit (Chris Kopczynski, Chris Pizzo, M.D. and Peter Hackett, M.D. became the ninth, tenth and eleventh Americans, respectively, to reach the summit of Everest). And everyone returned safely from the mountain.

The diagram shows what measurements the expedition hoped to make, and what was actually accomplished. The scientific data are presently being analyzed. Results and conclusions will be forthcoming in the medical literature within a year. The information will help explain physiological changes in patients with heart or lung problems that lead to chronic hypoxia.

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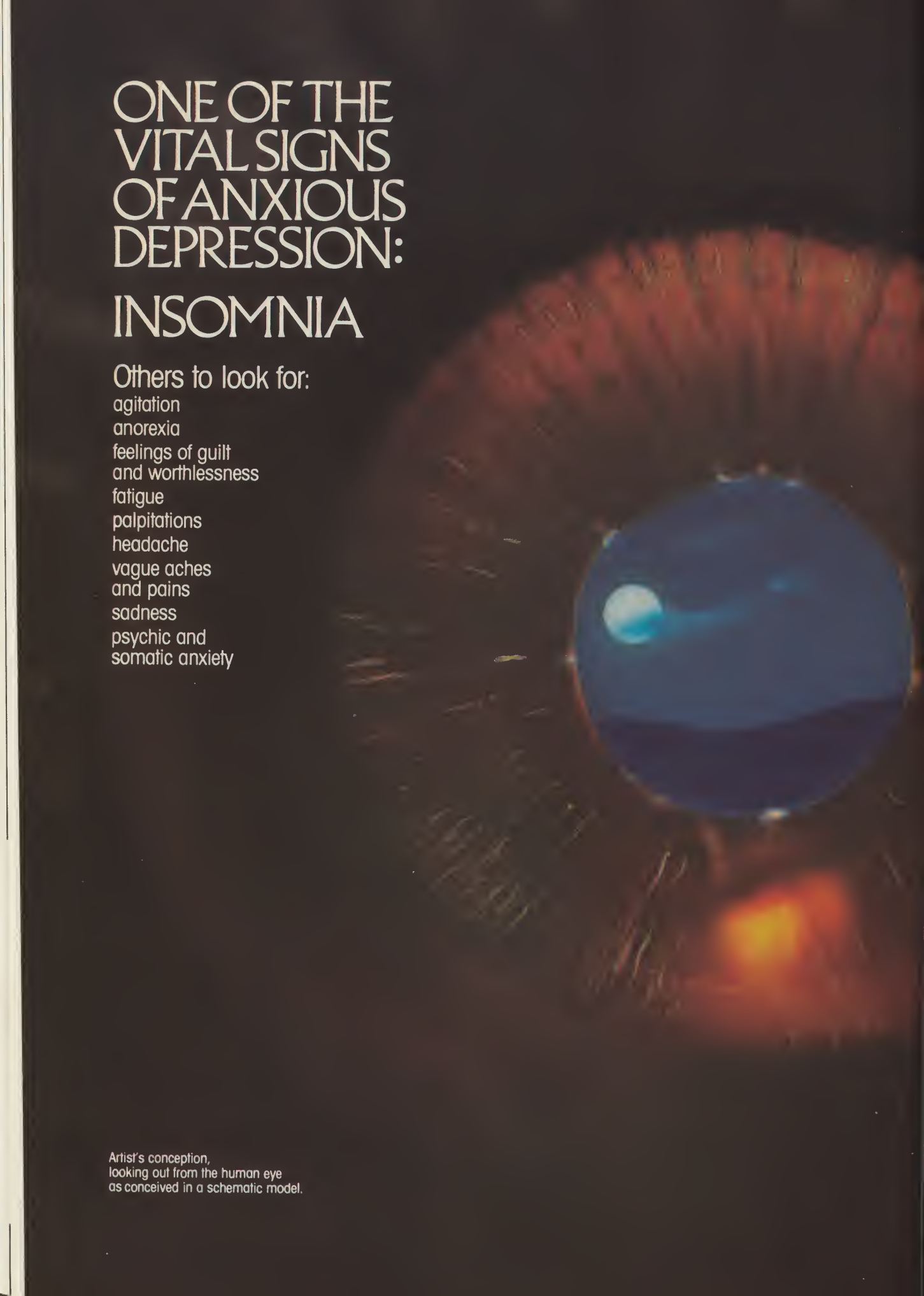
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sadness
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Antichalinergic: Disturbonce of accommodation, paralytic ileus, urinary retention, dilatation of urinary troct.
Allergic: Skin rosh, urticorio, photosensitizotian, edema of face and tongue, pruritus.
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Gastraintestinal: Nouseo, epigastric distress, vomiting, anorexio, stomotitis, peculior taste, diorrheo, black tongue.
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The Management of Ovarian Carcinoma

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CLARENCE E. EHRLICH, M.D.[2]
Indianapolis

OVARIAN CANCER is the fourth leading cause of cancer deaths in American women. It is estimated by the American Cancer Society that there will be 18,000 new ovarian cancer cases in 1980 and that 11,200 of these patients will die. Although ovarian cancer accounts for 25% of all invasive genital tract cancers, it presently kills more women than cervix and endometrial cancer together. There are approximately 17 new cases of ovarian cancer each year per 100,000 women of all ages.

Due to its silent growth and relative inaccessibility, early detection is rarely possible and the majority of patients present with advanced tumors. Due to more aggressive surgical removal of disease and advances in chemotherapy, the mean survival time and quality of life have improved. In spite of this, the overall five-year survival rate for ovarian cancer is approximately 30-35% and this figure has not changed in 30 years.

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Detection and Diagnosis

A very disturbing fact is that about 30% or less of all patients with ovarian carcinoma are amenable to primary curative resection. The majority of ovarian cancers are found with spread beyond the ovary, involving pelvic or abdominal viscera and peritoneal surfaces. In addition, early signs and symptoms are rare and the sensitivity and specificity of currently available screening or detection methods are inadequate for early diagnosis.

The epithelial tumors are silent and frequently disseminate very early. A pelvic mass, pelvic pressure, or a vague history of progressive gastrointestinal tract symptoms, such as increased flatulence, eructation, or obstipation, are often the presenting symptoms. These obviously occur in advanced malignancies, which carry an unfavorable prognosis.

Four methods of cancer spread are applicable to ovarian cancer. These include local extension, peritoneal seeding, lymphatic and hematogenous spread. Hematogenous and lymphatic metastases are less frequent in ovarian cancers than in other malignancies. Local extension and peritoneal seeding occur more often and earlier, produce the major symptoms, and provide the mechanism for death (bowel obstruction) in the majority of patients.

Peritoneal seeding is a major mechanism of dissemination. If a tumor is entirely encapsulated, one might anticipate a cure with surgical therapy only. If there are papillary excrescences on the surface, the probability of dissemination exists and cure is less likely. Ovarian cancer cells may be shed into the peritoneal fluid. This form of dissemination can occur by tumor growth through the capsule or by intraoperative rupture. In these cases, cure by local operation alone is unlikely and adjuvant therapy is indicated.

Lymphatic extension is probably more common than previously noted. Patients with extensive intra-abdominal seeding often have lymph node metastases. Lymphatic spread is a prominent finding in certain germ-cell tumors such as dysgerminoma.

Physical examination is the usual method of detection. The early detection of ovarian cancer, for practical purposes, is nonexistent. Laparotomy is needed to confirm both early and advanced disease.

In recent years, some tumor-specific antigens have been identified. Carcino-embryonic antigen reported with colon cancers has stimulated much investigation to find specific antigenicity of ovarian neoplasm with the hope that serologic screening tests might be devised. To date, this has been unsuccessful.

The typical presentation of an ovarian cancer is a pelvic or abdominal mass. Local pressure and abdominal fullness are frequent symptoms. Classically, this disease is insidious in onset and occult in its spread. Irregular or postmenopausal bleeding is occasionally noted. Advanced cases may present with ascites, pain, and symptoms referrable to metastatic sites. Often these advanced symptoms occur within several months, making early diagnosis almost impossible.

Hormonal aberrations can include absent, irregular, or excessive menses. There is no definite common pattern. Since menstrual irregularities are often associated with functional cysts, the symptom of abnormal uterine bleeding can be more confusing than helpful. Specialized gonadal stromal tumors may produce steroid hormones that cause end-organ stimulation. Depending upon the hormone produced, the patient may manifest uterine bleeding, endometrial hyperplasia or carcinoma, breast stimulation, or virilization. Granulosa cell tumors have classically been associated with estrogen production and Sertoli-Leydig cell tumors have been associated with androgen production (old term—arrhenoblastoma). In fact, any tumor of this group could produce any steroid hormone, including glucocorticoids.

The germ cell tumors may also be associated with hormone or enzyme production. While rarely valuable as a diagnostic tool, these "markers" may be very useful to monitor disease status. These include alpha feto-protein (AFP), human chorionic gonadotropin (hCG), carcino-embryonic antigen (CEA), and lactic dehydrogenase (LDH).

Palpable ovarian mass in a premenarchal or postmenopausal female should be considered abnormal. A large, solid, bilateral, or fixed mass is more often associated with a malignancy, while a unilateral, cystic, mobile, smaller mass is more often associated with benign disease. Neither of these findings is diagnostic. Masses which occur in the reproductive age group may be followed or treated with hormonal suppression. Those masses which persist through a menstrual cycle require definitive evaluation. Symptomatic masses should be investigated promptly in any age group.

The postmenopausal palpable ovary (PMPO) syndrome has been proposed by Barber and Graber. The ovary is so small in a postmenopausal woman it is almost impossible to feel distinctly. Therefore, when one palpates a definite enlargement in a postmenopausal woman, surgical exploration or laparoscopy to determine the cause of this enlargement should be considered.

Table 1: The International Staging of Ovarian Malignancies

I Growth limited to the ovaries.
- Ia Growth limited to one ovary; no ascites.
  - i. No tumor on the external surface; capsule intact.
  - ii. Tumor present on the external surface and/or capsule ruptured
- Ib Growth limited to both ovaries; no ascites.
  - i. No tumor on the external surface; capsule intact.
  - ii. Tumor present on the external surface and/or capsule ruptured
- Ic Tumor either Stage Ia or Ib but with ascites present or positive peritoneal washings.

II Growth involving one or both ovaries with pelvic extension.
- IIa Extension and/or metastases to the uterus and/or tubes.
- IIb Extension to other pelvic tissues.
- IIc Tumor either Stage IIa or IIb, but with ascites present or positive peritoneal washings.

III Growth involving one or both ovaries with intraperitoneal metastases outside the pelvis and/or positive retroperitoneal nodes. Tumor limited to the true pelvis with histologically proven malignant extension to small bowel or omentum.

IV Growth involving one or both ovaries with distant metastases. If pleural effusion is present, there must be positive cytology to allot a case to Stage IV. Parenchymal liver metastasis equals Stage IV.

Ascites with a palpable abdominal mass is a common finding when the tumor has metastasized to the omentum or diaphragm. Although ascites is suspicious for a malignant tumor, it can occur with a pleural effusion and a benign ovarian fibroma (Meig's Syndrome).

Table 2: W.H.O. Classification of Ovarian Cancers

Coelomic Epithelial Origin

1. Common epithelial tumors
   a. Serous
   b. Mucinous
   c. Endometrioid
   d. Clear Cell
   e. Brenner
2. Undifferentiated carcinoma
3. Mixed Mesodermal tumor (carcinosarcoma)

Germ-Cell Origin

1. Teratoma
   a. Mature teratoma
      1) Dermoid cyst
      2) Struma ovarii
      3) Neoplasms secondarily arising from mature cystic teratoma (squamous carcinoma, carcinoid, etc.)
   b. Immature teratoma
2. Dysgerminoma
3. Embryonal carcinoma
4. Endodermal sinus tumor
5. Choriocarcinoma
6. Mixed germ-cell tumor
7. Gonadoblastoma

Specialized Gonadal Stromal Origin

1. Granulosa-theca group
   a. Granulosa tumor
   b. Thecoma
2. Sertoli-Leydig group
   a. Sertoli tumor
   b. Leydig tumor
3. Gynandroblastoma
4. Lipid-cell tumor
5. Unclassified gonadal stromal tumor

Non-Specific Mesenchymal Origin

1. Fibroma, angioma, leiomyoma, lipoma
2. Lymphoma
3. Sarcoma

Diagnostic Procedures

A high index of suspicion and an aggressive diagnostic approach is essential to the diagnosis of ovarian carcinoma. However, the diagnostic problem lies in the fact that the ovaries are not readily accessible to most good present-day diagnostic indicators of malignancy.

Cytology, in the form of a pap smear, very infrequently will show malignant ovarian cells and when it does, the disease is usually far advanced.

Radiologic evaluation varies depending on stage of the pelvic mass and the need to exclude a primary malignancy elsewhere that has metastasized to the ovaries.

a. Ultrasound can delineate a mass, but does not differentiate benign from malignant. As a screening test, ultrasound is probably no more sensitive than pelvic examination and is certainly more expensive.

b. CAT scans are proving valuable in identifying adenopathy and metastatic implants.

c. Upper and lower GI series are used to rule out a primary gastric or colon cancer and to determine the extent of bowel involvement in advanced cases.

d. Breast palpation and mammography can rule out a suspected breast cancer.

Laparotomy and surgical exploration are essential for diagnosis.

Pathology and Classification

The currently employed FIGO staging, adopted in 1976, is shown in *Table 1.* This classification is based on the clinical findings as well as the findings at surgical exploration.

No classification of ovarian cancer is ideal because of the many cell types that are involved and their great variation and natural history. This one is no exception, but it is essential to use it if we are to assess and compare our results. Preferably, it should be supplemented by an exact record of cell types and histologic grade of malignancy. Staging is important not only for comparing treatment and results, but more significantly, for planning appropriate primary and secondary therapy. It is no longer acceptable to lump all ovarian malignancy into a single category "ovarian cancer."

If the diagnosis of an ovarian malignancy is made or suspected preoperatively, clinical and radiographic studies may be obtained that will aid in the treatment planning for this patient. These studies could provide information about the patient's general health and condition or about the extent of this particular tumor that would help the surgeon intraoperatively.

Recommended Procedures

1. Complete history and physical examination, especially breasts, abdomen, and pelvis.
2. Laboratory studies: CBC, urinalysis, SMA-12.
3. Chest x-ray, EKG.

4. Endoscopic studies: Cystoscopy and proctoscopy.

5. Ultrasound scan of pelvis.

6. Other radiographic studies: IVP, upper GI series and small bowel follow through, barium enema.

7. Paracentesis or thoracentesis, if indicated; fluid for cell block.

These studies should eliminate the possibility of another primary site with ovarian metastasis, as well as provide the surgeon with knowledge that could prevent the need for a diverting colostomy. Radio-isotope studies such as liver scan, brain scan, and bone scan are of little value in this disease. Bone and brain metastases are uncommon and liver involvement, if present, is usually capsular rather than parenchymal.

Approximately 85% of all ovarian cancers are of coelomic epithelial origin, the so-called adenocarcinomas. Papillary or serous adenocarcinomas are most common, followed by undifferentiated carcinoma, mucinous adenocarcinoma, and endometriod adenocarcinoma. The remaining 15% are made up of the "special" ovarian cancers. An abbreviated form of the World Health Organization classification of ovarian cancers is shown in *Table 2.*

Operative Management

When the diagnosis of ovarian cancer is made or suspected prior to operation, the surgeon may prepare the patient most suitably. The choice of incision, blood availability, mechanical and antibiotic bowel preparation, projected duration of operation, and availability of skilled assistants or consultants, can all be provided for more effectively in the preoperative period. However, the diagnosis is often made unexpectedly at the operating table. In some such cases, the wisest choice will be to terminate the procedure and commit the patient to a second operation at a more suitable time and place, though in most cases the necessary goals of the primary operation can be achieved.

We recommend that the operating surgeon keep the following goals in mind while operating on ovarian cancer. If these three questions can be conclusively answered at the completion of the operation, then a second operation will not be necessary:

1) Is this lesion a primary ovarian cancer?

Cancers from the breast, colon, stomach, lung, and endometrium (among others), may metastasize to the ovary. The Krukenberg tumor from the stomach is the classical example of such a condition. Primary tumors of other sites will generally not respond to the same postoperative measures as ovarian cancers.

2) What is the stage or extent of this cancer?

The surgeon must have an understanding of the staging system and a recognition of the frequency of occult metastasis. Adequate exposure in the upper abdomen can only be obtained with a vertical incision. Biopsies of the upper abdominal peritoneal surfaces, lateral gutters, diaphragm, omentum and lymph nodes should be performed even when these sites are grossly negative. Data indicate that 50% of patients thought to have disease limited to the pelvis (Stage I or II) have disseminated disease.

3) Has maximal cytoreduction (debulking) without undue morbidity been achieved?

In many cases, complete removal of all gross tumor is not possible, but removal of all tumor masses larger than 2-3 cm usually is possible. In many cases, hysterectomy, bilateral oophorectomy and omentectomy will often suffice. In some cases, segmental resection and anastamosis of sigmoid colon may convert a sub-optimal case to an optimal case.

With these goals in mind, most patients will derive greatest benefit from hysterectomy and bilateral oophorectomy. Most oncologists recommend omentectomy as routine, though this opinion is not unanimously held. Biopsies of other sites which are grossly involved should be performed. If there is no gross spread, then random biopsies of the diaphragm, lateral paracolic gutters, and small bowel mesentery may reveal microscopic spread. In all cases of known or suspected ovarian cancer, a sample of ascites, if present, or peritoneal washings should be obtained for cytologic inspection.

Unilateral oophorectomy and omentectomy alone are indicated for an occasional patient who desires to preserve the capability of childbearing, provided that 1) the tumor is of the mucinous type and of low grade histology; 2) it is unilateral and unruptured; and 3) there is no evidence of adhesions or metastases in the pelvis or peritoneum. Consideration can be given to removing the other ovary and performing a hysterectomy after childbearing is completed.

Young patients with nonepithelial tumor might also be candidates for unilateral oophorectomy. In dysgerminoma and other germ cell tumors, special attention needs to be given to the paraaortic nodes.

Since the vast majority of these patients will require adjuvant therapy by another physician, careful attention should be given to the operative note. A careful description of the findings, the exploration, the tissues removed, and the status of the tumor at the completion of the procedure is the most effective way to communicate with other consultants.

Adjuvant therapy, whether radiation therapy or drug therapy, functions according to the laws of first-order kinetics. That is, a fixed ratio of cells subjected to treatment at each course will be eliminated. It is reasonable, therefore, to assume that patients with small volumes of tumor will have better response rates than patients with large volumes of tumor. Also, when individual lesions exceed 2 or 3 cm in size, there is a central core of hypoxic cells which are not in growth cycle and therefore more resistant to therapy. A number of retrospective studies have indicated the advantage of complete or nearly complete removal of gross tumor. The differences are sufficient in some cases that patients who have Stage III

tumors which are completely removed have a better prognosis than those with Stage II tumors which are not completely removed. No prospective, randomized study has been conducted comparing surgery plus adjuvant therapy to adjuvant therapy without operation. These retrospective studies suggest such a protocol might be unethical.

Post-Operative Management

Currently, radiotherapy is seldom used to treat ovarian cancer. Exceptions are local external irradiation or intraperitoneal radioactive colloids for palliation. Local irradiation therapy utilizing intraperitoneal colloidal phosphorus-32 may be given for Stage I and Stage II ovarian cancers with no residual disease. These radioactive isotopes are beta emitters with a short half life. Beta radiation will penetrate tissues for a distance of not more than 5 to 7 mm and is effective only for superficial disease.

Controversy still reigns as to the effectiveness of external irradiation therapy in treatment of ovarian cancer. The major drawback to irradiation therapy is the occurrence of occasionally severe complications with this treatment. The bone marrow is often depleted after treatment; thus, initiating chemotherapy and/or surgery for any reason after total abdominal radiation can be hazardous.

Four types of drugs have established activity in advanced epithelial ovarian cancer. These are 1) alkylating agents, 2) doxorubicin, 3) cisplatin, and 4) hexamethylmelamine. There is evidence that 5-flourouracil has some activity as well. In all probability, methotrexate and actinomycin D, which have been included in some combination regimens, are not as active as these other five agents.

Alkylating agents have received the widest trial in patients with ovarian cancer. The response rate in previously untreated patients with measurable disease can be expected to be between 40 and 60%.

Doxorubicin is an anthracycline antibiotic which has shown activity in previously untreated cases equivalent to that observed with melphalan (an alkylating agent).

Cis-Platinum has shown activity as both a single agent and as part of combination regimens. In one study, using a dose of 100 mg/M^2, 52% of patients with ovarian cancer responded.

Hexamethylmelamine is a substituted melamine. Its mechanism of action is unclear. Clinically, it is not cross-resistant with alkylating agents. The cumulative response rates for hexamethylmelamine are 30% in advanced epithelial ovarian cancer.

With at least four different active drug types, ovarian cancer would appear to have a significant potential for the development of successful combination regimens. The success of combination chemotherapy would be manifest by higher complete response rates and ultimately by increased disease-free intervals and overall survival.

Postoperative management of non-epithelial cancer differs from the management of epithelial cancer. Patients with advanced stages of dysgerminomas and those not desiring to bear more children should be managed by total abdominal hysterectomy, bilateral salpingo-oophorectomy, and omentectomy. This tumor is uniquely sensitive to irradiation among ovarian cancers. Other germ cell tumors, such as embryonal carcinoma or the endodermal sinus tumor, are highly malignant tumors. The usual method of treatment consists of surgery followed by chemotherapy. Combinations such as actinomycin, vincristine and cyclophosphamide (VAC) or cisplatin, vinblastine, and bleomycin (PVB) have been responsible for significant palliation and remission in these very malignant germ-cell tumors.

The granulosa cell tumor is occasionally known to grow rapidly and often is diagnosed after necrosis and hemorrhage through the capsule. More frequently, this tumor grows slowly and is characterized by recurrences 10 to 20 years after the initial surgery. Treatment in adults consists of total abdominal hysterectomy and bilateral salpingo-oophorectomy. Unilateral salpingo-oophorectomy can be performed and is usually curative in children and in adolescents because most of the tumors are unilateral, benign, and encapsulated. The Sertoli-Leydig cell tumor is usually unilateral; therefore, unilateral oophorectomy is adequate in most young women, although total abdominal hysterectomy and bilateral salpingo-oophorectomy is the treatment of choice in older women.

The "second look" laparotomy has become common practice in many institutions. Patients who show a complete response after a given number of courses of chemotherapy have abdominal exploration. Depending on the findings, chemotherapy is stopped, changed, or continued.

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An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor
Pulvules®, 250 and 500 mg

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae,* and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coomb testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

As with other broad-spectrum antibiotics, colitis, including rare instances of pseudomembranous colitis, has been reported in conjunction with therapy with Ceclor.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor® (cefaclor). Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [100281R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae.*[8]

Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

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200066

Photosensitive Reactions to Thiazide-Related Diuretic Agents

Clinical Notes



JERE D. GUIN, M.D.
Kokomo

DRUG ERUPTIONS have been described as bright in color, bizarre in appearance, sudden in onset, bilateral, symmetrical, and severely pruritic. This clinical picture probably best fits the exanthematous form of drug eruption, but other forms of drug reactions can be missed if we expect to see a stereotype. The first principle in recognition of a drug eruption is suspicion because practically every presentation of dermatitis medicamentosa can be produced by other causes. Fortunately, reaction patterns to any particular drug make up a rather short list, and except for perhaps urticarial and exanthematous eruptions each morphologic category seems to be produced by a limited number of drugs. A recommended approach[1-4] matches the patient's medications with drugs known to produce that picture. Good lists of drugs in each category as well as reactions to individual medications are given by Bruinsma.[1]

Traditionally we picture drug reactions as urticarial or exanthematous. While these certainly occur, photosensitive ractions to diuretic agents may be the most common manifestation that I see, perhaps because of the recent increase in usage of thiazide-related diuretic agents in the treatment of mild hypertension. The lesions are located in light-exposed areas and may be erythematous,[5,6] eczematoid[7] or lichenoid.[7] Fortunately, the problem is mostly seasonal except for those individuals who travel south for the winter.

The mechanism may be phototoxic[6] or photoallergic.[7] The former is nonallergic and presumably can occur on first exposure.[8] Phototoxic reactions resemble sunburn. Photoallergic rashes are delayed, require prior exposure, have a more varied morphology, and occur at lower dosage. Because this is a form of delayed hypersensitivity, tests may cause flares at distant sites.

Etiologically, the problem arises because the basic structure of these agents contains a chlorine-substituted sulfanilamide moiety that apparently loses the chlorine atom on exposure to light along with formation of an excited oxygen, or a free radical, or both. Presumably the altered drug is then better able to bind to Ia-like antigen on Langerhans cells and macrophages. The photoreaction to thiazides can also cause polymerization (at least of acrylic monomers),[10] but while polymerization in some cases encourages contact sensitization[11] there is no evidence that would support that concept here.

The absorption wavelength of a drug is important for phototoxic reactions, but photoallergic responses may occur to longer wavelengths. Phototoxic reactions to thiazides are induced by UVB[6,12] (sunburn range), but UVA (blacklight range) can cause photoallergic eruptions.[7] Characteristic absorption for furosemide is slightly higher and UVA can induce phototoxic reactions to certain other drugs e.g. the psoralens. This is of more than academic interest because protection from

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shorter wavelengths with window glass, PABA sunscreens, etc. is easier to obtain. Dermatologists must also be concerned when patients on photoactive drugs are treated with light for psoriasis and other conditions because of photosensitivity.[13] Lists of such medications can be found elsewhere.[1-4,14]

Treatment for photosensitive reactions to thiazide-related drugs is straightforward. Withdrawal from the drug, protection from light exposure, or both is usually adequate. Additional relief can be obtained with a potent corticosteroid aerosol e.g. Kenalog aerosol or with a potent topical corticosteroid preparation with occlusion. Decisions on use of oral corticosteroids must be weighed against the potential for harm especially considering the underlying conditions for which diuretics are given.

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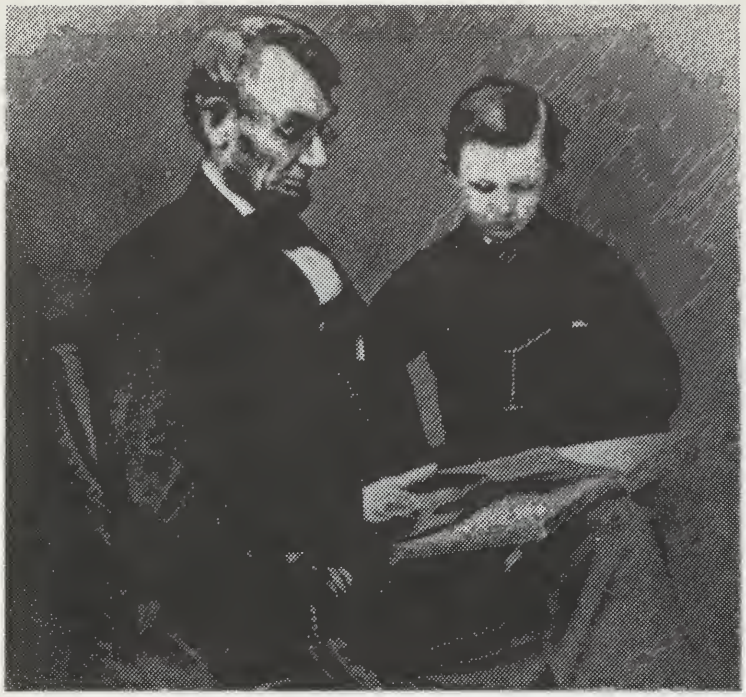
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The Importance of Accurate Medical Certification of Death

S. SUSAN GRAVES[1]
DAVID J. EDWARDS, M.D.[2]
Indianapolis

THE PHYSICIAN plays the key role in the development of mortality statistics. He has both responsibility and opportunity to make these data reflect the best medical opinion concerning cause of death.

Whenever it is stated that "deaths from cardiovascular diseases are declining," or "lung cancer in females is increasing . . . ," it should be understood that these observations are based on information collected from death records and can be no more accurate than the medical certifications.

Uses of Mortality Statistics

Statistical information from death certificates not only helps identify problems, but also measures the results of many areas of public health work. These data are a vital foundation upon which to base an effective public health program. Uses of these statistics are varied, ranging from the in-depth study of a specific disease to large-scale programs for the purpose of education, eradication, and/or control. In addition, mortality statistics are of considerable value to individual physicians and the medical field.

"The increase or decrease in the number of deaths, the geographic distribution of deaths from certain diseases, the risk of death from various causes at different ages, the medical implications of the combinations of conditions resulting in death, the frequency of autopsies, and the proportions of deaths occurring in hospitals are problems of interest to many health-related professions.

"The study of the frequency with which certain conditions are mentioned, whether or not they are the underlying cause, and also the frequency with which certain conditions occur together takes on significant importance now that the leading causes of death are generally the chronic diseases rather than the acute infectious diseases of past years. Information on multiple causes of death is of immediate importance for research and epidemiological studies and for the planning and implementing of public health programs."[1]

The Death Certificate

Most deaths will be reported on a "Medical Certificate of Death" *(Figure 1);* however, circumstances associated with a small percentage of deaths will necessitate the use of a "Coroner's Certificate of Death" *(Figure 2; see also Appendix).*

A preliminary explanation of the "underlying cause of death" should aid the physician in completing the medical portion of the death certificate.

The underlying cause of death is defined as the "disease or injury which initiated the train of events leading directly or indirectly to death or the circumstances of the accident or violence which produced the fatal injury."[2] This is an international definition developed by the World Health Organization to ensure universal compatibility of mortality statistics.

The condition on the certificate which is ultimately selected for tabulation should be the cause the physician feels

APPENDIX

Indiana Code Pertaining to the Office of County Coroner

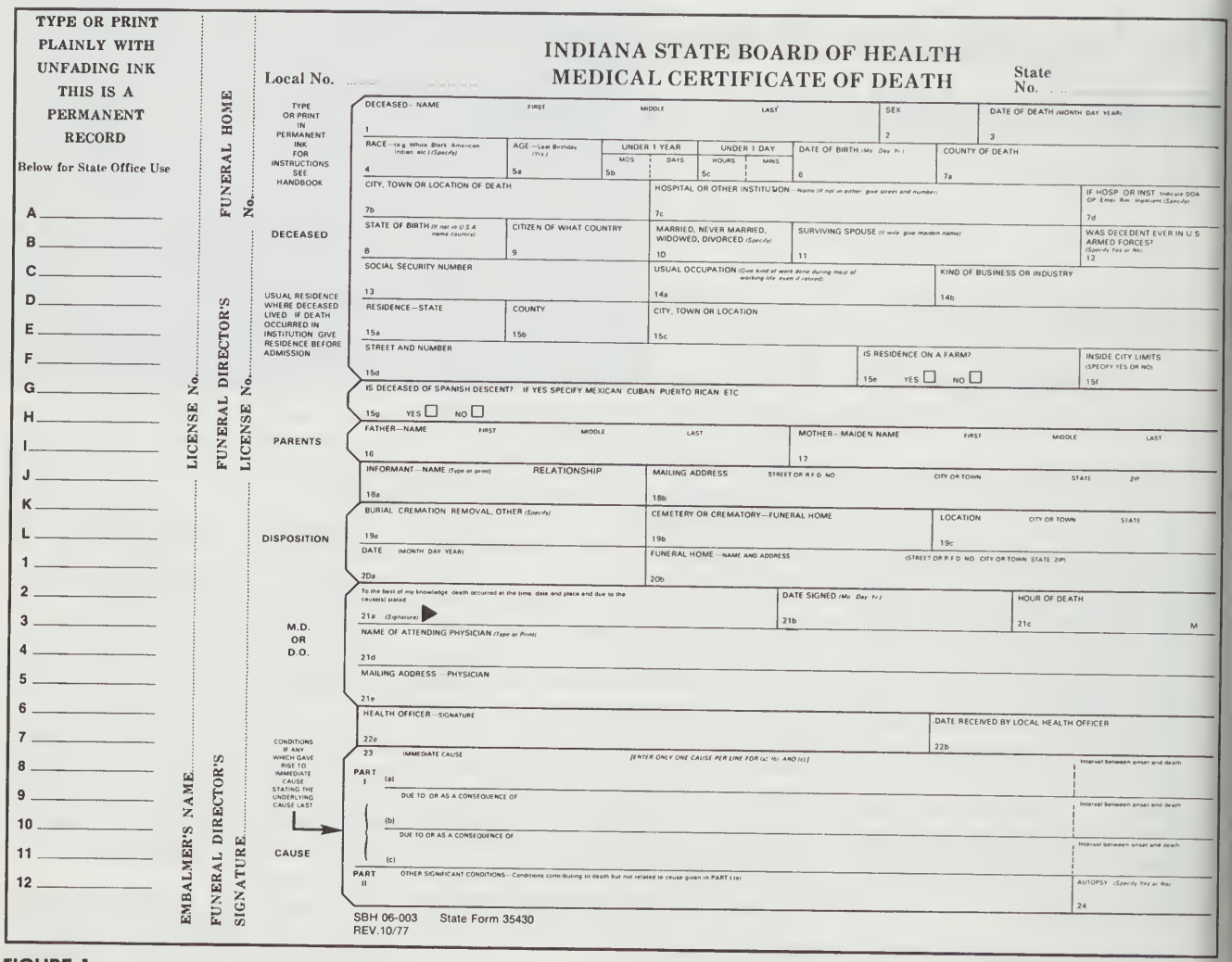
Effective September 1, 1981

"IC 36-2-14-6 Investigation of death of person; certificate of death; autopsy

Sec. 6. (a) Whenever the coroner is notified that a person in the county:
(1) has died from violence;
(2) has died by casualty;
(3) has died when apparently in good health;
(4) has died in an apparently suspicious, unusual, or unnatural manner; or
(5) has been found dead;

he shall, before the scene of the death is disturbed, notify a law enforcement agency having jurisdiction in that area. The agency shall assist the coroner in conducting an investigation of how the person died and a medical investigation of the cause of death."

[1] Nosologist, Division of Public Health Statistics, Indiana State Board of Health, 1330 W. Michigan St., Indianapolis, Ind. 46206.
[2] Assistant Commissioner for Medical Operations, Indiana State Board of Health.



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EMBALMER'S NAME..... LICENSE No.....
FUNERAL DIRECTOR'S SIGNATURE..... LICENSE No.....
FUNERAL DIRECTOR'S FUNERAL HOME No.....

INDIANA STATE BOARD OF HEALTH
MEDICAL CERTIFICATE OF DEATH

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State No. . . .

TYPE OR PRINT IN PERMANENT INK FOR INSTRUCTIONS SEE HANDBOOK

DECEASED

USUAL RESIDENCE WHERE DECEASED LIVED IF DEATH OCCURRED IN INSTITUTION GIVE RESIDENCE BEFORE ADMISSION

PARENTS

DISPOSITION

M.D. OR D.O.

CONDITIONS IF ANY WHICH GAVE RISE TO IMMEDIATE CAUSE STATING THE UNDERLYING CAUSE LAST

CAUSE

1 DECEASED—NAME (FIRST, MIDDLE, LAST) | 2 SEX | 3 DATE OF DEATH (MONTH DAY YEAR)

4 RACE—(e.g. White, Black, American Indian, etc.) (Specify) | 5a AGE—Last Birthday (Yrs.) | 5b UNDER 1 YEAR (MOS / DAYS) | 5c UNDER 1 DAY (HOURS / MINS) | 6 DATE OF BIRTH (Mo. Day Yr.) | 7a COUNTY OF DEATH

7b CITY, TOWN OR LOCATION OF DEATH | 7c HOSPITAL OR OTHER INSTITUTION—Name (If not in either, give street and number) | 7d IF HOSP. OR INST. Indicate DOA OP, Emer. Rm., Inpatient (Specify)

8 STATE OF BIRTH (If not in U.S.A. name country) | 9 CITIZEN OF WHAT COUNTRY | 10 MARRIED, NEVER MARRIED, WIDOWED, DIVORCED (Specify) | 11 SURVIVING SPOUSE (If wife, give maiden name) | 12 WAS DECEDENT EVER IN U.S. ARMED FORCES? (Specify Yes or No)

13 SOCIAL SECURITY NUMBER | 14a USUAL OCCUPATION (Give kind of work done during most of working life, even if retired) | 14b KIND OF BUSINESS OR INDUSTRY

15a RESIDENCE—STATE | 15b COUNTY | 15c CITY, TOWN OR LOCATION

15d STREET AND NUMBER | 15e IS RESIDENCE ON A FARM? YES ☐ NO ☐ | 15f INSIDE CITY LIMITS (SPECIFY YES OR NO)

15g IS DECEASED OF SPANISH DESCENT? IF YES SPECIFY MEXICAN, CUBAN, PUERTO RICAN, ETC. YES ☐ NO ☐

16 FATHER—NAME (FIRST, MIDDLE, LAST) | 17 MOTHER—MAIDEN NAME (FIRST, MIDDLE, LAST)

18a INFORMANT—NAME (Type or print) RELATIONSHIP | 18b MAILING ADDRESS (STREET OR R.F.D. NO., CITY OR TOWN, STATE, ZIP)

19a BURIAL, CREMATION, REMOVAL, OTHER (Specify) | 19b CEMETERY OR CREMATORY—FUNERAL HOME | 19c LOCATION (CITY OR TOWN, STATE)

20a DATE (MONTH DAY YEAR) | 20b FUNERAL HOME—NAME AND ADDRESS (STREET OR R.F.D. NO., CITY OR TOWN, STATE, ZIP)

21a To the best of my knowledge, death occurred at the time, date and place and due to the cause(s) stated. (Signature) ▶ | 21b DATE SIGNED (Mo. Day Yr.) | 21c HOUR OF DEATH M

21d NAME OF ATTENDING PHYSICIAN (Type or Print)

21e MAILING ADDRESS—PHYSICIAN

22a HEALTH OFFICER—SIGNATURE | 22b DATE RECEIVED BY LOCAL HEALTH OFFICER

23 IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a), (b), AND (c).]

PART I
(a) DUE TO, OR AS A CONSEQUENCE OF — Interval between onset and death
(b) DUE TO, OR AS A CONSEQUENCE OF — Interval between onset and death
(c) — Interval between onset and death

PART II OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a). | AUTOPSY (Specify Yes or No) 24

SBH 06-003 State Form 35430
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FIGURE 1

fulfills the requirements of the above definition. His opinion will be accepted automatically when the certificate is properly completed with only *one condition to a line* and with the *underlying condition stated on the lowest used line in Part I.*

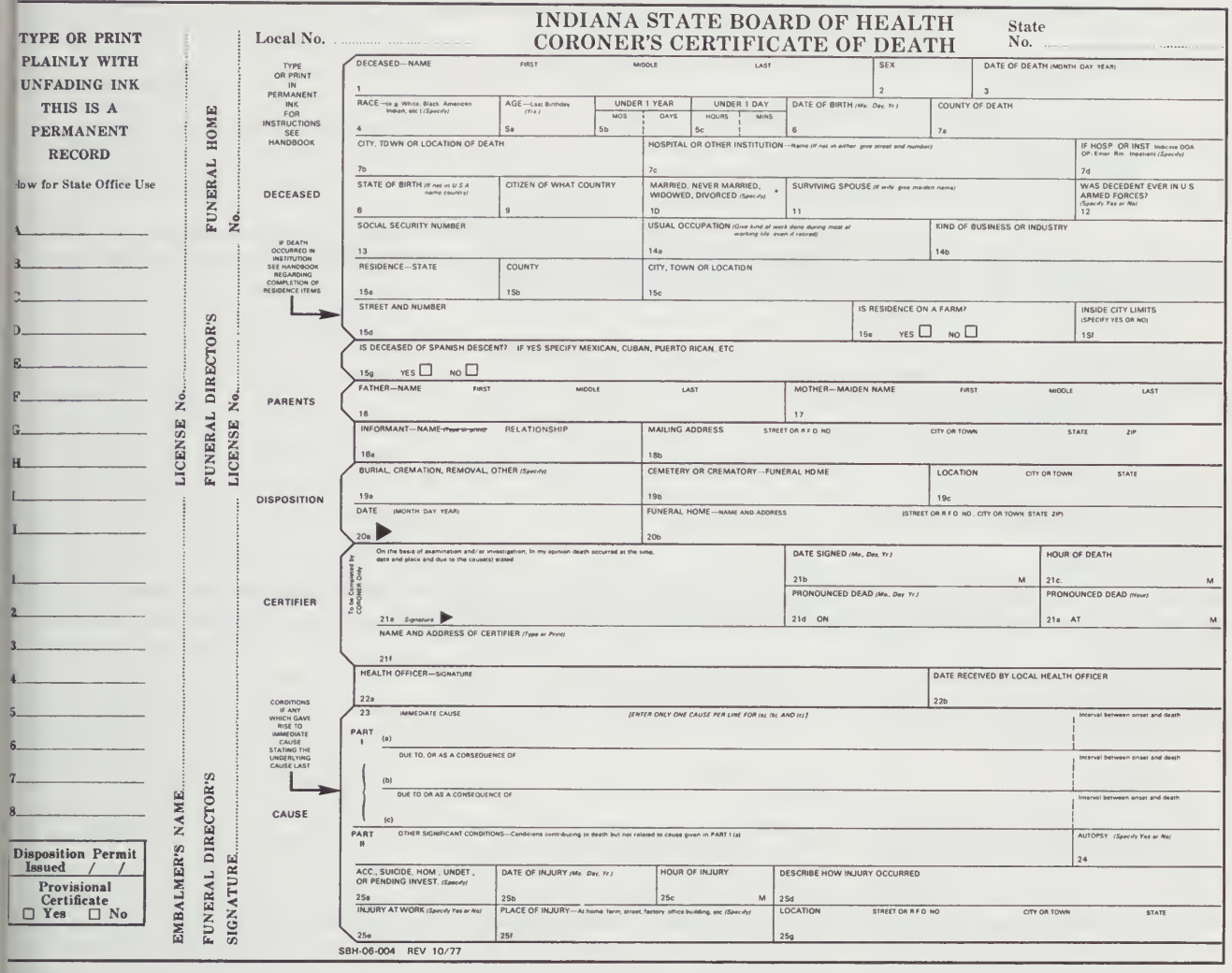
Detailed examination of Item 23 of the death certificate should facilitate proper use of the underlying cause: Line (a) of the certificate should identify the immediate (terminal) condition. Terms such as "respiratory arrest" are of no particular statistical significance and should be avoided, along with symptoms and other modes of dying. Whenever the terminal condition describes completely the cause of death, no entry is necessary on either line (b) and (c). (Example: Bronchogenic Carcinoma.) Otherwise, the condition on line (a) should be "due to or as a consequence of" the condition listed on line (b) below. Stated in another way, the entry on line (b) should represent the condition giving rise to the immediate (terminal) cause listed above it on line (a). Again, it is desirable to use terms which represent specific disease entities.

The condition on line (b) should be "due to or as a consequence of" the cause listed on line (c).

Finally, the condition listed on line (c) (or the lowest used line in Part I) should be the "underlying cause." This should be the condition which ultimately led to death and should be the cause of the entry on line (b). In a few instances, it may be necessary to include additional items (d), (e), etc. The instruction at the top of Section 23 [Enter only *one* cause per line for (a), and (b), and (c)] also applies to additional lettered items. The lowest used *additional* line should then be the underlying cause.

All pertinent diseases or conditions antecedent to the immediate cause of death should be fully reported. This is necessary not only for the traditional determination of the underlying cause of death, but also for the national program of multiple causes of death, based on all reported conditions.[1]

Consideration should be given to any



TYPE OR PRINT PLAINLY WITH UNFADING INK THIS IS A PERMANENT RECORD

Blow for State Office Use

A_____
B_____
C_____
D_____
E_____
F_____
G_____
H_____
I_____
J_____
1_____
2_____
3_____
4_____
5_____
6_____
7_____
8_____

Disposition Permit Issued / /
Provisional Certificate ☐ Yes ☐ No

EMBALMER'S NAME..... LICENSE No.....
FUNERAL DIRECTOR'S SIGNATURE..... FUNERAL DIRECTOR'S LICENSE No.....
FUNERAL HOME No.....

Local No. .....

INDIANA STATE BOARD OF HEALTH
CORONER'S CERTIFICATE OF DEATH

State No. .....

TYPE OR PRINT IN PERMANENT INK FOR INSTRUCTIONS SEE HANDBOOK

DECEASED

1 DECEASED—NAME (FIRST, MIDDLE, LAST) | 2 SEX | 3 DATE OF DEATH (MONTH DAY YEAR)

4 RACE—(e g White, Black, American Indian, etc) (Specify) | 5a AGE—Last Birthday (Yrs.) | 5b UNDER 1 YEAR (MOS / DAYS) | 5c UNDER 1 DAY (HOURS / MINS) | 6 DATE OF BIRTH (Mo. Day, Yr.) | 7a COUNTY OF DEATH

7b CITY, TOWN OR LOCATION OF DEATH | 7c HOSPITAL OR OTHER INSTITUTION—Name (If not in either, give street and number) | 7d IF HOSP OR INST (Indicate DOA, OP, Emer Rm, Inpatient) (Specify)

8 STATE OF BIRTH (If not in U S A name country) | 9 CITIZEN OF WHAT COUNTRY | 10 MARRIED, NEVER MARRIED, WIDOWED, DIVORCED (Specify) | 11 SURVIVING SPOUSE (If wife, give maiden name) | 12 WAS DECEDENT EVER IN U S ARMED FORCES? (Specify Yes or No)

13 SOCIAL SECURITY NUMBER | 14a USUAL OCCUPATION (Give kind of work done during most of working life, even if retired) | 14b KIND OF BUSINESS OR INDUSTRY

IF DEATH OCCURRED IN INSTITUTION SEE HANDBOOK REGARDING COMPLETION OF RESIDENCE ITEMS

15a RESIDENCE—STATE | 15b COUNTY | 15c CITY, TOWN OR LOCATION

15d STREET AND NUMBER | 15e IS RESIDENCE ON A FARM? YES ☐ NO ☐ | 15f INSIDE CITY LIMITS (SPECIFY YES OR NO)

15g IS DECEASED OF SPANISH DESCENT? IF YES SPECIFY MEXICAN, CUBAN, PUERTO RICAN, ETC YES ☐ NO ☐

PARENTS

16 FATHER—NAME (FIRST, MIDDLE, LAST) | 17 MOTHER—MAIDEN NAME (FIRST, MIDDLE, LAST)

18a INFORMANT—NAME (Type or print) RELATIONSHIP | 18b MAILING ADDRESS (STREET OR R F D NO, CITY OR TOWN, STATE, ZIP)

DISPOSITION

19a BURIAL, CREMATION, REMOVAL, OTHER (Specify) | 19b CEMETERY OR CREMATORY—FUNERAL HOME | 19c LOCATION (CITY OR TOWN, STATE)

20a DATE (MONTH DAY YEAR) | 20b FUNERAL HOME—NAME AND ADDRESS (STREET OR R F D NO, CITY OR TOWN, STATE, ZIP)

CERTIFIER

To be Completed by CORONER Only

On the basis of examination and/or investigation, in my opinion death occurred at the time, date and place and due to the cause(s) stated

21a Signature ▶ | 21b DATE SIGNED (Mo, Day, Yr) | 21c HOUR OF DEATH M

21d PRONOUNCED DEAD (Mo, Day Yr.) ON | 21e PRONOUNCED DEAD (Hour) AT M

21f NAME AND ADDRESS OF CERTIFIER (Type or Print)

22a HEALTH OFFICER—SIGNATURE | 22b DATE RECEIVED BY LOCAL HEALTH OFFICER

CAUSE

CONDITIONS IF ANY WHICH GAVE RISE TO IMMEDIATE CAUSE STATING THE UNDERLYING CAUSE LAST

23 IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a), (b), AND (c).] | Interval between onset and death

PART I (a)

DUE TO, OR AS A CONSEQUENCE OF | Interval between onset and death

(b)

DUE TO OR AS A CONSEQUENCE OF | Interval between onset and death

(c)

PART II OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a) | AUTOPSY (Specify Yes or No) 24

25a ACC., SUICIDE, HOM., UNDET., OR PENDING INVEST. (Specify) | 25b DATE OF INJURY (Mo, Day, Yr.) | 25c HOUR OF INJURY M | 25d DESCRIBE HOW INJURY OCCURRED

25e INJURY AT WORK (Specify Yes or No) | 25f PLACE OF INJURY—At home, farm, street, factory, office building, etc (Specify) | 25g LOCATION (STREET OR R F D NO, CITY OR TOWN, STATE)

SBH-06-004 REV 10/77

IGURE 2

atements of the interval between the nset of the disease or condition and me of death. The *International Classification of Diseases* states, "The words ue to or as a consequence of which ppear on the certificate include not only tiological or pathological sequences, ut also sequences when there is no such irect causation but where an antecedent condition is believed to have prepared the way for the direct cause by amage to tissues or impairment of unction even after a long interval."[3] Example: Late effects of Tuberculosis.)

At the far right of each line is an item equesting information on the interval etween "onset of a condition and leath." A unit of time, ranging from seconds to years, should be indicated for each line used. The unit of time on line (c) should be greater than that on line (b), and the unit of time on line (b) should be greater than that on line (a).

Part II of the death certificate should include any other significant condition which unfavorably influenced the course of the morbid process and thus contributed to the fatal outcome but was not related to the disease or the condition causing it.

"Yes" or "No" should be specified in Item 24 (Autopsy).

The following examples of proper and improper certification present a background for the understanding of the currently accepted system for development of mortality statistics. These are actual cases taken from Indiana death records.

Examples 1-3 illustrate sequences that *accurately* describe related events leading to death. Only one condition is listed per line, there are no conflicts in intervals, and the underlying cause is stated on the lowest used line in Part I.

Examples 4-11 illustrate problems in certification. An explanation accompanies each item.

Examples 12-21 are presented to supplement the *Guidelines.*

Role of the State Board of Health

Mortality statistics, derived from study of about 50,000 annual Indiana

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a) (b) AND (c).]	Interval between onset and death
PART I (a)	Sepis	48 hours
	DUE TO OR AS A CONSEQUENCE OF	
(b)	Post-operative Whipple Procedure	5 days
	DUE TO OR AS A CONSEQUENCE OF	
(c)	Carcinoma of the Pancreas	1 month
PART II	OTHER SIGNIFICANT CONDITIONS - Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24

EXAMPLE 1—The certifier has traced a series of events leading to death. He has indicated that the surgery was performed for carcinoma of the pancreas—information that the non-physician may not know.

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a) (b) AND (c).]	Interval between onset and death
PART I (a)	(a) Cardiac Arrest	1 minute
	(b) Pulmonary Embolism	5 minutes
	DUE TO OR AS A CONSEQUENCE OF	
	(c) Amputation Right Leg	15 hours
(b)	(d) Gangrene	3 weeks
	DUE TO OR AS A CONSEQUENCE OF	
(c)	(e) Arteriosclerosis	10 years
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24
	Diabetes	

EXAMPLE 2—Describes a longer series of events accurately presented to enable the nosologist to select an underlying cause. The physician has clearly indicated arteriosclerosis to be the underlying cause by placing it in Part I and diabetes in Part II.

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a) (b) AND (c).]	Interval between onset and death
PART I (a)	Pneumonia	1 week
	DUE TO OR AS A CONSEQUENCE OF	
(b)	Chronic Obstructive Lung Disease	15 years
	DUE TO OR AS A CONSEQUENCE OF	
(c)	Pulmonary Tuberculosis, Inactive	20 years
PART II	OTHER SIGNIFICANT CONDITIONS - Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24

EXAMPLE 3—Was assigned to "Late Effects of Tuberculosis." Although inactive for many years, TB was the underlying cause.

death records, are developed by the Division of Public Health Statistics of the Indiana State Board of Health. The nosologist (a health professional specializing in the systematic classification of diseases) is responsible for utilizing the "underlying cause" concept in assigning statistical codes for medical certification for all Indiana deaths.

The nosologist must adhere to Nomenclature Regulations established by the World Health Organization (WHO), which require that cause of death assignment be in accordance with the current revision of the *International Classification of Diseases* (ICD) and that the selection of the underlying cause be in accordance with the international rules.

WHO publishes an updated two-volume classification approximately every 10 years; the *Ninth Revision* has been used since 1979. The Tabular List (Volume I) contains a list of three-digit categories with four-digit subcategories of diseases and injuries and a tabular list of inclusions. It also contains the Supplementary Classification of External Causes of Injury and Poisoning. Volume II contains a comprehensive alphabetic index. The International Rules are designed to ensure that the nosologist does not arbitrarily choose certain conditions and reject others. *His basic role must be to interpret what the physician considered the underlying cause.* Good mortality data depend on accurate and consistent coding—all diagnostic statements about the same disease or condition, no matter how imprecise, should be given the same assignment by all nosologists. This uniform application of underlying cause selection requires standardization of medical certification forms.

The agency responsible for the development of model certificates is the National Center for Health Statistics (NCHS). This organization is also responsible for classification of diseases for North America. Among its other functions are the compilation and publication of national mortality statistics developed from analysis of about two million annual death records. NCHS also sponsors detailed courses explaining the procedures involved in extract-

ng the underlying cause from each ertificate.

The Query Program

The selection of the underlying cause of death is based on *how* the physician eports causes of death as well as *what* ie reports.

The query program is an active effort o ensure that the physician, not the nologist, is assigning the cause of death. Emphasis is placed on the arrangement of the causes on the death certificate in letermining the physician's selection of he underlying cause.

Many certificates with a single cause isted in Part I can be accepted without uestion. However, the physician hould be queried when the only condition listed in this section is one which nay or may not be of traumatic origin, one which rarely arises independently, or when there is doubt that the manner of reporting reflects the physician's opinion of the underlying cause of death. The query is worded in such a manner hat completion normally requires a ninimum amount of the certifier's time. Final coding should reflect any additional information from the certifier.[2]

A few final words are warranted on a subject not discussed elsewhere in the ext. There is much value in researching he relationship of occupation to disease. Angiosarcoma of the liver was inked to employment in the vinyl chloride industry by a manual search of many thousands of records after an alert physician noted that two of his patients had this rare condition *and* shared similar work backgrounds. This discovery led to new occupational safety rules.

While sections 14a (usual occupation during *most* of working life *even if retired)* and 14b (kind of business or industry) are not part of the medical certification, they are so vital in identifying areas of job-related risk that an effort should be made to ensure accurate completion of this section.

GUIDELINES

TO ASSURE THAT THE NOSOLOGIST ACCURATELY REFLECTS THE PHYSICIAN'S INTENT:

ALL CERTIFICATES SHOULD BE TYPED OR CAREFULLY PRINTED

1. Give enough detail to assure the assignment of the condition to the appropriate system or cause. Example: BYPASS SURGERY. (Coronary? Intestinal?)
2. Avoid the use of uncommon or interchangeable abbreviations.
3. Specify primary site for all malignant neoplasms.
4. Qualify tumors as "malignant," "benign," or "undetermined," and specify site.
5. List complications of surgery (pulmonary embolism, renal failure) and *state the condition for which surgery was performed,* including underlying cause.
6. Avoid the use of modes of dying or of symptoms (respiratory failure, circulatory failure, fever, nausea, etc.).
7. Detail the circumstances and location of all accidents as requested on the certificate.
8. State "suicide," "homicide," or "undetermined" for gunshot or other wounds or injuries.
9. Avoid conflicts in time when reporting sequences of events.
10. Avoid contradictions between Parts I and II.

REFERENCES

1. *Physicians' Handbook on Medical Certification: Death, Birth, Fetal Death,* U.S. Department of Health, Education, and Welfare, Public Health Service, Publication Number 78-1108, National Center for Health Statistics, June 1978.
2. *Instruction Manual Part 2a, Instructions for Classifying The Underlying Cause of Death,* 1982, U.S. Department of Health and Human Services, Public Health Service, Office of Health Research, Statistics, and Technology, National Center for Health Statistics, Hyattsville, Maryland, September 1981.
3. *Ninth Revision, International Classification of Diseases,* Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, Volume 1, World Health Organization, Geneva, Switzerland, 1977.

Examples 4-11 illustrate problems in certification. An explanation accompanies each item.

Examples 12-21 are presented to supplement the *Guidelines.*

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a), (b), AND (c).]	Interval between onset and death
PART I (a)	Cerebral Matastases	
	DUE TO, OR AS A CONSEQUENCE OF	Interval between onset and death
(b)	Rheumatic Fever	
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(c)	Carcinoma of Lung	
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24

EXAMPLE 4—Rheumatic fever should be in Part II. It cannot be the cause of the condition on the line above.

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a), (b), AND (c).]	Interval between onset and death
PART I (a)	Pulmonary Embolism	
	DUE TO, OR AS A CONSEQUENCE OF	Interval between onset and death
(b)		
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(c)		
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24

EXAMPLE 5—This death should be queried to attempt to determine an underlying cause.

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a), (b), AND (c).]	Interval between onset and death
PART I (a)	Peritonitis	
	DUE TO, OR AS A CONSEQUENCE OF	Interval between onset and death
(b)	Traumatic Perforation Duodenum	
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(c)		
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24

EXAMPLE 6—Although trauma is mentioned, this was *reported* as a "natural" death; a Coroner's Certificate should have been used. A query revealed an automobile accident to be the cause of the injury leading to death. "In those cases when an accident, suicide, or homicide has occurred, the medical examiner or coroner should be notified. If the medical examiner or coroner does not assume jurisdiction, the physician should describe injuries and accidents. The physician should indicate in all cases whether or not the medical examiner or coroner was notified."[1]

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a), (b), AND (c).]	Interval between onset and death
PART I (a)	Cancer of Colon	6 months
	DUE TO, OR AS A CONSEQUENCE OF	Interval between onset and death
(b)	Local Spread to Peritoneum	3 months
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(c)	Cachexia	1 month
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24

EXAMPLE 7—This sequence is presented in reverse order.

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a) (b) AND (c).]	Interval between onset and death
PART I (a)	Uncontrolled Diabetes Mellitus	12 years
	DUE TO OR AS A CONSEQUENCE OF	
(b)	Carcinoma of the Pancreas	3 years
	DUE TO OR AS A CONSEQUENCE OF	
(c)		
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24

EXAMPLE 8—Although a causal relationship between these conditions is possible, in this instance the time sequence eliminates pancreatic carcinoma as the cause of diabetes. A condition of three years duration cannot cause a condition of 12 years duration. Carcinoma of the pancreas should be entered in Part II.

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a) (b) AND (c).]	Interval between onset and death
PART I (a)	Pulmonary Embolism	
	DUE TO OR AS A CONSEQUENCE OF	
(b)		
	DUE TO OR AS A CONSEQUENCE OF	
(c)		
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24
	Burn and trauma to foot--severe inflammation	

EXAMPLE 9—This was reported as a natural death; a Coroner's Certificate should have been used. The items entered in Part II should have been stated in Part I: (b) severe inflammation; (c) burn and trauma to foot. All particulars of the injury should have been listed in the appropriate sections of 25 (a-g) in Part II.

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a) (b) AND (c).]	Interval between onset and death
PART I (a)	Malnutrition	
	DUE TO OR AS A CONSEQUENCE OF	
(b)	Non - Hodgkin's Lymphoma	
	DUE TO OR AS A CONSEQUENCE OF	
(c)	Arteriosclerotic Heart Disease	
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24

EXAMPLE 10—ASHD should be in Part II, because it cannot be the cause of the lymphoma.

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a) (b) AND (c).]	Interval between onset and death
PART I (a)	Uremia; Ascites; Cirrhosis of the Liver; Arteriosclerotic	
	DUE TO OR AS A CONSEQUENCE OF	
(b)	Heart Disease; Congestive Heart Failure; Healed	
	DUE TO OR AS A CONSEQUENCE OF	
(c)	Myocardial Infarction; Diabetes; Old Fractures T_1 & T_2	
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24

EXAMPLE 11—The findings of an autopsy should not be presented randomly; an attempt should be made to indicate the condition which, in the opinion of the physician, was responsible for death.

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a), (b), AND (c).]	Interval between onset and death
PART I (a)	Hemorrhage	
	DUE TO, OR AS A CONSEQUENCE OF	Interval between onset and death
(b)		
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(c)		
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No)
		24

EXAMPLE 12—A query elicited the reply that the hemorrhage was due to a perforated gastric ulcer. The *International Classification of Diseases,* Volume II, lists 10 columns of hemorrhages of different sites. Hemorrhage, unspecified, would be assigned to "Other Disorders of Circulatory System," when an infinite number of possibilities might be more accurate. *See Guidelines, # 1.*

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a), (b), AND (c).]	Interval between onset and death
PART I (a)	SSPE	
	DUE TO, OR AS A CONSEQUENCE OF	Interval between onset and death
(b)		
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(c)		
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No)
		24

EXAMPLE 13—SSPE (subacute sclerosing panencephalitis) is not a common abbreviation and is not listed in the latest (1981) *Dorland's Medical Dictionary,* 26th Edition. Abbreviations not widely used or readily identified should be avoided. *See Guidelines, # 2.*

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a), (b), AND (c).]	Interval between onset and death
PART I (a)	Metastatic Disease	
	DUE TO, OR AS A CONSEQUENCE OF	Interval between onset and death
(b)		
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(c)		
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No)
		24

EXAMPLE 14—The primary site should be specified for all malignancies. Different codes are used to represent each different (specific) site or area. If the primary site is *unknown,* this should be stated. *See Guidelines, # 3.*

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a), (b), AND (c).]	Interval between onset and death
PART I (a)	Brain Tumor	
	DUE TO, OR AS A CONSEQUENCE OF	Interval between onset and death
(b)		
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(c)		
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No)
		24

EXAMPLE 15—The codes are different for malignant, benign, or undetermined neoplasms. *Type* and *site* should be specified. *See Guidelines, # 4.*

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a) (b) AND (c)]	Interval between onset and death
PART I (a)	Renal Failure Following Surgery	
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(b)		
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(c)		
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24

EXAMPLE 16—It is helpful to know the condition for which surgery was performed. This will present a more precise picture of the underlying condition leading to death. *See Guidelines, #5.*

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a) (b) AND (c)]	Interval between onset and death
PART I (a)	Circulatory Failure	
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(b)	Vascular Collapse	
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(c)		
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24

EXAMPLE 17—What was the underlying cause? More specific conditions are preferred. *See Guidelines, # 6.*

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a) (b) AND (c)]	Interval between onset and death
PART I (a)	Fall	
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(b)		
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(c)		
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24

EXAMPLE 18—Accidental injuries should be submitted on a Coroner's Certificate. All appropriate sections should be completed. Did the accident occur at home? At work? On the street? In a public building? How did the accident happen? A fall down the basement steps? From a ladder? From a curb? A fall from bed in a hospital? Studies conducted by the National Safety Council incorporate all factors involved in accidental deaths. *See Guidelines, # 7.* "In cases of accidental death, these items are used in justifying the payment of double indemnity on life insurance policies. They are also needed for a more accurate determination of causes of death. They also form the basis of studies of date and time of injury and occupational injuries."[1]

23	IMMEDIATE CAUSE [ENTER ONLY ONE CAUSE PER LINE FOR (a) (b) AND (c)]	Interval between onset and death
PART I (a)	Self-inflicted Gunshot Wound	
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(b)		
	DUE TO OR AS A CONSEQUENCE OF	Interval between onset and death
(c)		
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)	AUTOPSY (Specify Yes or No) 24

EXAMPLE 19—Different codes represent different groups of injuries. Accidental? Suicidal? *See Guidelines, # 8.*

23	IMMEDIATE CAUSE *[ENTER ONLY ONE CAUSE PER LINE FOR (a), (b), AND (c).]*		Interval between onset and death
PART I	(a) Renal Failure		2 weeks
	DUE TO, OR AS A CONSEQUENCE OF		Interval between onset and death
	(b) Diabetes		5 years
	DUE TO OR AS A CONSEQUENCE OF		Interval between onset and death
	(c) Arteriosclerotic Heart Disease		2 years
PART II	OTHER SIGNIFICANT CONDITIONS – Conditions contributing to death but not related to cause given in PART I (a)		AUTOPSY *(Specify Yes or No)* 24

23	IMMEDIATE CAUSE *[ENTER ONLY ONE CAUSE PER LINE FOR (a), (b), AND (c).]*		Interval between onset and death
PART I	(a) Pneumonia		3 days
	DUE TO, OR AS A CONSEQUENCE OF		Interval between onset and death
	(b) Emphysema		10 years
	DUE TO OR AS A CONSEQUENCE OF		Interval between onset and death
	(c) Arteriosclerotic Heart Disease		3 years
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)		AUTOPSY *(Specify Yes or No)* 24

EXAMPLES 20-A and 20-B—In each of these examples, the condition on (c) cannot be the cause of a condition with a greater duration. The conditions on (c) should be placed in Part II if the durations are accurate. Furthermore, ASHD cannot be the underlying cause of diabetes. *See Guidelines, # 9.*

23.	IMMEDIATE CAUSE *[ENTER ONLY ONE CAUSE PER LINE FOR (a), (b), AND (c).]*		Interval between onset and death
PART I	(a) Pneumonia		
	DUE TO, OR AS A CONSEQUENCE OF		Interval between onset and death
	(b) Fracture, Left Hip		
	DUE TO OR AS A CONSEQUENCE OF		Interval between onset and death
	(c)		
PART II	OTHER SIGNIFICANT CONDITIONS—Conditions contributing to death but not related to cause given in PART I (a)		AUTOPSY *(Specify Yes or No)* 24

ACC., SUICIDE, HOM., UNDET., OR PENDING INVEST. *(Specify)* 25a. Natural	DATE OF INJURY *(Mo., Day, Yr.)* 25b. 6-1-82	HOUR OF INJURY 25c. 5:15 p M	DESCRIBE HOW INJURY OCCURRED 25d. Decedent Fell Down Basement Steps
INJURY AT WORK *(Specify Yes or No)* 25e. no	PLACE OF INJURY—At home, farm, street, factory, office building, etc. *(Specify)* 25f. none	LOCATION STREET OR R F D NO / CITY OR TOWN / STATE 25g	

EXAMPLE 21—An attempt should be made to avoid contradictions between Parts I and II. Although this death is designated "natural" in item 25a, it is clearly due to an accidental cause. Similarly, natural deaths should not be termed "accidental." *See Guidelines, # 10.*

CME QUIZ

Ovarian Carcinoma

CONTINUED FROM PAGES 714-718

O OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer n the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, ivision of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

Feminizing tumors of the ovary:
a. Are most often granulosa cell tumors
b. Are most frequently solid tumors
c. May produce endometrial hyperplasia or carcinoma
d. All of the above

. Which ovarian tumor(s) produce(s) a feminizing hormone?
a. Adult teratoma
b. Dysgerminoma
c. Serous cystadenoma
d. Granulosa cell tumor

The Krukenberg tumor is a bilateral metastatic carcinoma of the ovaries in which the ovaries maintain their shape. The primary site is usually the:
a. Small intestine
b. Colon
c. Stomach
d. Uterus

4. The MOST COMMON malignant ovarian neoplasm is:
a. Mucinous cystadenocarcinoma
b. Krukenberg's tumor
c. Serous cystadenocarcinoma
d. Dysgerminoma

5. Epithelial ovarian carcinomas frequently metastasize to:
a. Liver Parenchyma
b. Omentum and Diaphragm
c. Bones
d. Brain

6. The most common group of ovarian tumors is:
a. Derived from germ cells
b. Derived from sex cords and stroma
c. Derived from the coelomic epithelium
d. Metastatic

7. Which of the following ovarian neoplasms has the worst prognosis?
a. Serous cystadenocarcinoma
b. Sertoli-Leydig cell tumor
c. Cystic teratoma of the ovary
d. Thecoma

8. Call-Exner bodies are seen in:
a. Clear cell carcinoma
b. Dysgerminoma
c. Theca cell tumor
d. Granulosa cell tumor

9. When ovarian carcinoma is suspected, the most appropriate abdominal incision is:
a. Pfannensteil
b. Vertical midline
c. Rockey-Davis
d. McBurney

10. Which of the following ovarian tumors is most likely to be curable by radiation therapy, even in the presence of metastases?
a. Endodermal sinus tumor
b. Immature teratoma
c. Serous cystadenocarcinoma
d. Dysgerminoma

September CME Quiz Answers

Following are the answers to the CME quiz that appeared in the September 1982 issue of THE JOURNAL: "The Receptor Concept: Basic to Clinical Science," by Suzanne Y. Felten, Ph.D., and Henry R. Besch, Jr., Ph.D.

1. b	6. c
2. c	7. b
3. a	8. c
4. a	9. a
5. c	10. b

Answer sheet for Quiz: (Ovarian Carcinoma . . .)

1. a b c d	6. a b c d
2. a b c d	7. a b c d
3. a b c d	8. a b c d
4. a b c d	9. a b c d
5. a b c d	10. a b c d

wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing lable)

Signature

To be eligible for this month's quiz, send your completed, signed application before Nov. 10, 1982 to the address appearing at the top of this page.

WILLIAM M. DUGAN, JR., M.D.
Clinical Oncology Center
Methodist Hospital of Indiana, Inc.

New information from
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**EVERY PHYSICIAN'S OFFICE—
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Mammography Uncovers 90% Of Breast Cancers

The Final Report of the controversial Breast Cancer Detection Demonstration Project (BCDDP), a five-year screening of more than 280,000 women for cancer of the breast, has revealed that nearly 90% (88.9%) of the 3,557 breast cancers uncovered by the project were found by mammography, as compared to 56% by physical examination.

Mammography alone (in cases involving negative findings by physical examination) identified 41.6% of the cancers, and physical examination alone (in cases involving negative findings by mammography) identified 8.7%.

(Results of the study were announced to more than 400,000 physicians in the July/August issue of *Ca*, an American Cancer Society journal for clinicians.)

The BCDDP began in 1973 under joint sponsorship of the American Cancer Society and the National Cancer Institute. It soon ran into severe criticism from several sources and for a variety of reasons. Some critics charged that mammography subjected women to radiation doses which could cause more cancer than the technique would find. That charge led to more careful control of the procedure and steady reduction in doses to the point where the increased risk now is almost negligible.

Other criticism was aimed at the study design which, critics say, makes long-term follow-up and analysis difficult or impossible, and at the cost, about $50 million over the project's five years.

The project also took some heat when a few patients diagnosed with cancer who subsequently underwent mastectomy were found, following pathology review, not to have had malignant tumors. That led to debates over the issue of "minimal cancers" and what to do about it.

With all the problems and criticisms, ACS considers BCDDP successful, in that it demonstrated the value of mammography, particularly for certain groups.

Reprinted with permission, *Cancer Letter*, Vol 8, No. 28, pages 3-4.

More than 280,000 women were enrolled at 29 detection centers in 27 regional population centers, and more than half of them (51.7%) were screened annually for cancer of the breast for five consecutive years.

Nearly one-third of the cancers (32.4%) detected by the BCDDP centers were noninvasive or, when invasive, less that one centimeter in size.

Mammography scored especially high in discovery of the smallest cancers—those which response most favorably to treatment. It alone accounted for 59% of noninvasive cancers which were identified, as well as 52.6% of invasive cancers smaller than one centimeter in size.

The BCDDP findings confirmed those of a breast cancer screening project started by the Health Insurance Plan (HIP) of Greater New York in 1963, in which 62,000 women were enrolled. However, in the HIP study only 33.3% of the cancers were detected by mammography alone.

The BCDDP report suggests that the difference in results is most likely due to technological changes in the quality of mammography during the intervening years.

An accompanying statement in *Ca*, representing the view of the American Cancer Society's National Task Force on Breast Cancer Control, describes mammography in combination with physical examination of the breast as "the only cancer screening technique with documented proof of survival benefit in asymptomatic women over the age of 50 . . . . There is evidence that screening with mammography can detect very small, localized breast cancers in women 35 to 49 years old, which in turn suggests the possibility of better survival rates in this age group as well."

The Task Force comment continues:

"In the last few years, the diagnostic capabilities of mammography have improved considerably, while at the same time the radiation dose to the breast has been greatly diminished; currently, the procedure can deliver less than one rad to the mid-breast. The result is that with today's technology, judiciously used and in trained hands, the likelihood of developing radiation-induced breast cancer from mammography is small.

"Meanwhile, the existing level of undetected breast cancer in certain segments of the U.S. population is high. Therefore, the potential life saving benefit through early detection by mammography is considerable . . .

"The American Cancer Society firmly believes that any risk, no matter how small, should be reduced as much as possible, and that radiographic equipment should deliver the lowest dose of radiation consistent with producing an optimal diagnostic image."

The Task Force said the mid-breast radiation dose for typical exposures used in mammography at the BCDDP centers, as reported in 1979, averaged 0.37 rad for xeroradiographic units and 0.04 rad for film screen units.

The Task Force arrived at four conclusions:

1. Advancing age is the most important risk factor. Most breast cancers occur in women over the age of 50. In this age group there is definitive proof that screening for breast cancer lowered the death rate by 30% and that mammography and physical examination of the breast accounted for the reduction. It is imperative that screening using both modalities become a routine part of an annual medical examination of women over the age of 50 whenever feasible.

2. Since the symptomatic woman with a dominant mass or persistent discomfort, nipple discharge, or other

CONTINUED ON PAGE 760

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J-9043-4 July 1981



In the treatment of insomnia

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Feeling well rested in the morning usually means having slept well the night before. And for insomniac patients receiving hypnotic therapy, a good morning also means awakening with few side effects from their medication. Many physicians choose Dalmane for their patients who suffer from insomnia for this very reason.

Aside from enabling patients to fall asleep more quickly and sleep longer, Dalmane seldom causes morning hangover. Most Dalmane patients feel alert and refreshed when they awaken. In 53 paired-night clinical studies comparing Dalmane and placebo in 2010 insomniac patients with a variety of secondary diagnoses, most Dalmane patients awakened more alert and refreshed, and less groggy and drowsy, than on nights when they had taken only placebo.[1] In a double-blind crossover study of 42 patients in private practice, approximately three tim as many patients reported feeling refreshed and alert up awakening after a night on Dalmane (flurazepam/Roch compared to placebo nights.[2] This difference was highly significant ($p<0.001$). And a retrospective study of 2 hospitalized patients who received Dalmane revealed o a 3.1% incidence of side effects.[3]

While residual effects from Dalmane therapy are infrequent, patients should be cautioned about drinking alcohol, driving or operating hazardous machinery afte ingesting the drug.

Efficacy and safety in a broad range of patient types.

Over 2000 clinical trials involving more than 10,000 patients have shown that Dalmane patients fa asleep sooner, sleep longer and experience fewer noctu awakenings.[4] The safety and efficacy of Dalmane have been demonstrated in medical and surgical hospitalized patients, in patients seen in office practice and in elderl patients.[5-8] Since the risk of oversedation, dizziness, co

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sn and/or ataxia increases with larger doses in the elder-
l it is recommended that the dosage be limited to 15 mg.

Moreover, the efficacy and safety of Dalmane for the
tatment of insomnia have been demonstrated in thou-
sids of patients with a variety of primary medical condi-
tns, including cardiovascular, neuropsychiatric, endocrine-
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usculoskeletal disorders.[1] Dalmane (flurazepam HCl/Roche)
icontraindicated in pregnancy and in patients hypersensi-
te to the drug.

.voids rebound insomnia
pon discontinuation.

Rebound insomnia—a worsening of sleep beyond
etherapy levels after drug discontinuation—has been
ported as a potential clinical problem with some hypnot-
;.[9,10] However, this problem has not been reported with
almane. In eight out of eight sleep laboratory studies,
ere were no reports of rebound insomnia.[11] When you
escribe Dalmane, you can be confident of efficacy that
hances therapeutic progress. Your insomniac patients can
: assured of a restful night, night after night—a good start
r a good morning.

References: 1. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **2.** Zimmerman AM: *Curr Ther Res 13*:18-22, Jan 1971. **3.** Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther 21*:355-361, Mar 1977. **4.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **5.** Meyer JA, Kurland KZ: *Milit Med 138*:471-474, Aug 1973. **6.** Feffer HL, Gibbons B: *Med Times 101*(8):130-135, Aug 1973. **7.** Jacobson A *et al: Psychophysiology 7*:345, Sep 1970. **8.** Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc 27*:541-546, Dec 1979. **9.** Kales A, Scharf MB, Kales JD: *Science 201*:1039-1041, Sep 1978. **10.** Kales A *et al: JAMA 241*:1692-1695, Apr 1979. **11.** Monti JM: *Methods Find Exp Clin Pharmacol 3*(5):303-326, 1981.

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Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

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AUXILIARY REPORT

Karen (Mrs. Robert M.) Schleinkofer
President, ISMA Auxiliary

The following is an article by the state membership chairman, Mrs. James Koontz (Judy) of Vincennes.

Let's go "Up, Up, and Away" with membership this year and reach for all time high numbers!

Membership is to belong; is to care to be a part of something. With membership in the I.S.M.A.-Auxiliary, one shares many common goals with other medical families. Sometimes it is forgotten that the auxiliary is a family. The auxiliary strives to increase the caring and the ties that bind medical families together. We do care—doctors' spouses care—doctors' families care. In numbers, we can stand bigger and stronger and do a whole lot more to make our communities happier, healthier, and safer. In numbers, we make an impression on our nation. Our voices can be heard.

"The Future Belongs to Those Who Prepare for It." Can we adopt this motto for our 1982-83 auxiliary membership drive? Auxiliary's future lies in the retention and recruitment of members. Retained members are the auxiliary's backbone. They have experience in the field. They have valuable knowledge from the act of having done the jobs before. They exhibit expertise. Renewed memberships provide the guiding light. New members have something to contribute. They provide enthusiasm, "new blood," new ideas, and share many common goals. The auxiliary would like to encourage all members to prepare for the future by becoming active participants in sharing ideas, concerns, joys, hopes, and fears. A strong membership is the auxiliary's future. Let's prepare for it now and make ours a truly strong and effective organization.

The auxiliary hopes to increase its membership this year. The AMA Auxiliary lists the 5-R's of membership as:

1. RENEW—the present members
2. RECRUIT—the new members
3. REFRESH—the non-members
4. REACTIVATE—the drop-out members
5. REACH OUT—to the resident physician and medical student spouse groups.

The 5-R's also relate to the members-at-large segment of membership.

Jewelry Sale

The Auxiliary will sponsor a jewelry sale Oct. 15 and 16 during the ISMA Annual Convention. Twenty per cent of the proceeds will be earmarked for the Indiana AMA-ERF program.

I would like to solicit your help and participation in implementing two new membership programs this year. They are the "CHALLENGER PROJECT" and "BE MY GUEST." Let's talk about the "CHALLENGER PROJECT" and see if we can launch it before NASA gets theirs into orbit! This program should provide lots of incentive for county auxiliaries to increase their memberships.

The "challenge" will be made and accepted by two counties of like-size. This will be done in writing before Oct. 31, 1982, by the presidents and membership chairmen or treasurers of both counties. In the agreement, it will be stated as to what the prizes or "stakes" will be and whether or not the challenge will be for total number of new members or the percentage of increase over last year. The "stakes" could be for example: an AMA-ERF donation made in the name of the winner by the loser; the loser takes the winner out to lunch; the loser purchases something for the winning county in the name of the winner.

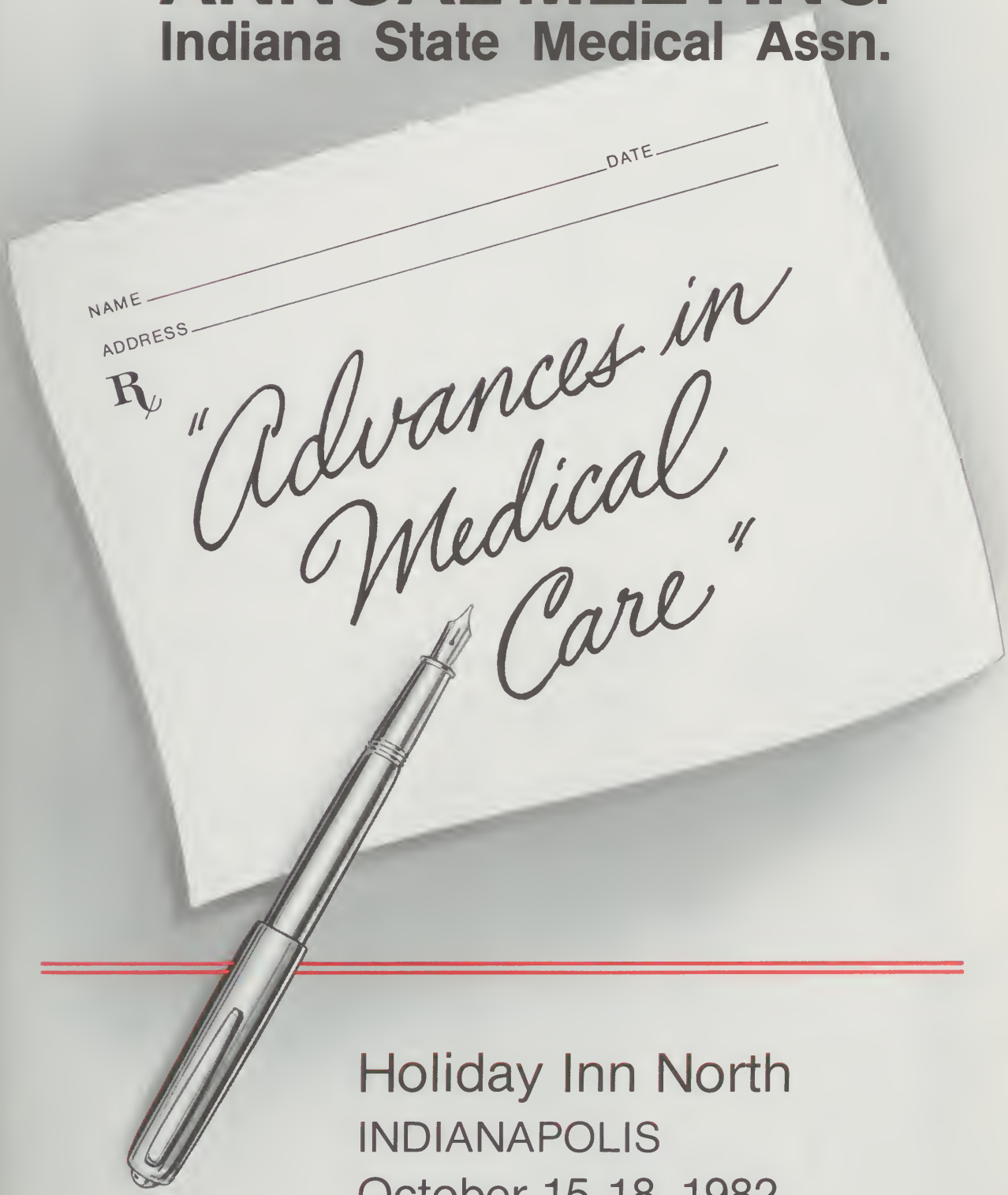
Remember—try something new and great! Try to go beyond your former limits. We've always heard that "something worth having is something worth working for!"

Send a copy of your "challenge" to the state membership chairman, Mrs James Koontz, 1405 Forest Hills Drive Vincennes 47591. We have great plans for announcing the winners and having the "debts paid" at the 1983 House o Delegates Convention in Ft. Wayne.

For those counties with medical student and resident physician spouses why not challenge them to help increas their membership, too? "BE MY GUEST" is a program by which a regular member can sponsor the spouse o a medical student or resident physicia by paying their dues for a year. Thi could be an excellent way for the members to say "Hello, I'm proud of th auxiliary, what it stands for and does And, I'd like for you to join us." Th important thing for the member to d is to make the "guest" feel welcom involved, informed, and comfortabl with the auxiliary. Let's get a head-sta on the future by getting to know thes spouses now.

The future DOES BELONG to a those who prepare for it starting NOW As the state auxiliary president, Karen says, "Up, Up, and Away" in 1982-8 Let's try something new; let's be ad venturesome; and, let's try to excee Karen's expectations of our capabiliti to have the greatest total membersh ever in Indiana.

1982
ANNUAL MEETING
Indiana State Medical Assn.



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October 15-18, 1982

Mental Hospital Liable in Murder Case

A PRIVATE MENTAL HEALTH HOSPITAL was liable for the murder of a woman by her ex-husband, a patient in the hospital, a Georgia appellate court has ruled.

In October 1974, the patient voluntarily admitted himself to the private hospital because his wife had been having an affair with another man for over two years and was divorcing him. He stated that he carried a gun in his car and wanted to kill his wife's lover and his wife. He was treated for "emerging homicidal impulses" for about a month. About two months later, on Jan. 14, 1975, he attempted suicide and was voluntarily admitted to the hospital for the second time.

Hospital records showed his continued thoughts of violence toward his 27-year-old former wife and her lover. On Feb. 7, 1975, his treatment plan review contained the following notation by his physician: "Review of plans focused on patient's explosive hostility which again came to the surface during his last weekend pass . . . How will he control it in the future? . . .(4) Avoid possible stressful situations on outside (avoid visits with his former wife)."

On the same day as the above review, the patient was issued a pass. Two days later, on Sunday, he used his pass and took his children to church. On the way home, he spotted his rival's car headed toward his ex-wife's house and he apparently "snapped." He took his gun, confronted his ex-wife and her lover, and shot and killed both of them. He was subsequently convicted of two counts of murder.

The children then filed a wrongful death suit against the hospital, alleging that their father's criminal act was foreseeable and that the death of their mother was the proximate result of the hospital's negligence in issuing a pass and failing to exercise more restraint on their father's freedom. A jury returned an award for the children, and the hospital appealed.

Affirming the decision, the appellate court rejected the hospital's argument that is was not liable because there was no physician-patient relationship with the ex-wife. The court said the hospital was in control of the patient and knew that he was likely to cause bodily harm. It followed that the hospital owed a duty to exercise reasonable care to control the patient to prevent him from doing harm. The duty owed was to the mother, and it was independent of the physician-patient relationship, the court said.

The imposition of liability on psychiatrists for breach of the duty to "control" dangerous patients would not hamper any Georgia policy on "open door" treatment of mental patients, the court added.—*Bradley Center, Inc. v. Wessner,* 287 S.E.2d 716 (Ga. Ct. of App., Feb. 15, 1982; as amended on denial of rehearing, March 11, 1982)

Courtesy of *The Citation,* July 15, 1982.

Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	GELFOAM	GER-O-FOAM
Category:	Hemostatic	Liniment
Brand Name:	Gelfoam, Upjohn	Ger-O-Foam, Geriatric
Generic Name:	Absorbable Gelatin Sponge	Methyl salicyclate-Benzocaine Emulsion
Dosage Forms:	Sponges, Packs, Dental packs, Prostatectomy Cones	Aerosol

	METYRAPONE	METYROSINE
Category:	Diagnostic agent	Antihypertensive
Brand Name:	Metopirone, Ciba	Demser, MSD
Generic Name:	Metyrapone	Metyrosine
Dosage Forms:	Tablets	Capsules

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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REFER TO PDR

Pointers on Office Leases

Business-Financial Advice for Physicians

RECENTLY, I REVIEWED an office lease for a doctor in southern Indiana. I asked him, "Did your attorney approve this lease?" Unfortunately, he replied, "No, I read it myself and signed it. Why?"

In short, the physician had signed an agreement that stated he would be responsible for everything in the building except replacement of the roof! If you do not understand a legal contract, you should not sign it until its terminology is explained and understood by you.

In leasing space, you should first determine if the location offers you the space needed, the water facilities, security and parking availability. Also find out if the space can be laid out the way you want it. Can it be remodeled or even expanded if needed?

Once you have the office plans and needs in mind, you can concentrate on the legal matters—having equally fair documents for you as well as for the lessor. Following are several items you should demand in your lease:

1. **Description and picture of the space you consider "your premises."** If the lease includes a requirement that you pay for hallways and public rest rooms, try negotiating the price down, since this is not functional space for you to make money.



RONALD R. DICKINSON
Noblesville, Ind.

2. **General interior finishing, fixtures and equipment.** Most leases provide an allowance for carpet, wallpaper and painting. If you plan to stay for a while, have washable wallpaper installed, even if it costs you extra. If the lessor will not do it, make sure the lease allows for you to decorate to your specifications and desires. Although most places will not provide drapes, you should ask for them in the negotiations. You have nothing to lose and a lot to gain. If you have a private office, ask for the room to be sound-proofed. If the ceilings are drop ceilings, have the lessor install sound-proof material on top of the drop ceiling at least six feet out from the walls to keep noise and conversations within the room.

If the lessor is tough to deal with on providing items you consider important, spend the money yourself before you move in. It will never be convenient after you have moved in. A money-saving tip is to run a chair railing along the walls that will get the most wear and tear. Then you will only need to paper about one-third of each wall rather than all.

3. **Term and renewal.** Your lease should spell out the number of years you are leasing and when each party must notify the other of cancellation or renewal. Make sure you have an opportunity to renew at least once and request at least two renewal options for your protection. Make sure the lease spells out how much your rent can increase each year and if you are responsible for your space's portion of real estate taxes and assessments on the building and on the land upon which the building is located.

An area of concern is how the wording reads on when notification of moving or renewal of the lease takes place. Some leases state that, if the lessor is not notified by a specific date prior to the end of the lease term, the lessee will be held responsible for the new terms. In other words, if you do not notify the lessor by the specified time and move out at the end of the lease, you can still be held liable for rents under the terms of the contract. This has happened where

Mr. Dickinson is president of Simplified Systems, Inc., Noblesville. He also is state director of Physicians Planning Service, Indiana; state manager of the National Association of Professions; and an instructor for the Continuing Education of CPAs.

buildings and areas of towns no longer offer attractive leasing opportunities.

4. **Rental.** During the term of the lease, what do you pay? The lease should indicate price per square foot and how much you pay per month.

5. **Use of premises.** Make sure you are not restricted in the use of the premises by certain guidelines you cannot live with.

6. **Lessor's insurance coverage and indemnification.** Ask that the lessor specify how much liability insurance is carried on the premises, as well as how much for bodily injury or death. In most cases, you will be required to carry insurance, so it is only fair that the lessor oblige, too. Also, request a paragraph outlining the rental agreement if the building is destroyed or seriously damaged by fire, water, etc. If an area can be used partially, rent should reflect this by a pro rata reduction.

7. **Taxes and utilities.** Read carefully, as these can change your rent costs per month considerably.

8. **Assignment.** Make sure you can assign or sublet the leased area if you want to. Normally, this will be accepted with written approval from the lessor.

9. **Condemnation.** If the leased premises or any part thereof are condemned, make sure you can terminate the lease.

10. **Death or disability.** These items are generally overlooked in leases. For your protection, demand a clause protecting you and/or your family in the event of premature death or disability. It would be normal and acceptable for the lease to terminate in about six months if death or disability occurs.

11. **Who is responsible?** Make sure each party's responsibilities are indicated very clearly. Do not be afraid to ask questions. Remember, it is too late after the lease is signed.

I have tried to identify most items you will face in a lease. If your lease does not have all of the above-mentioned items, consider renegotiations now rather than after it is too late.

Plan to have an attorney who is good with leases and contracts read your contract. It will be (or could be) some of the best money you will ever spend.

Remember, never sign anything you do not understand. Even if the lessor is a friend or relative, treat the matter as you would in doing business with a stranger.

Leases are serious business. The physician I mentioned at the beginning of this article ended up spending about $6,800 in three years on items that should have been covered under the terms of a properly constructed lease document!

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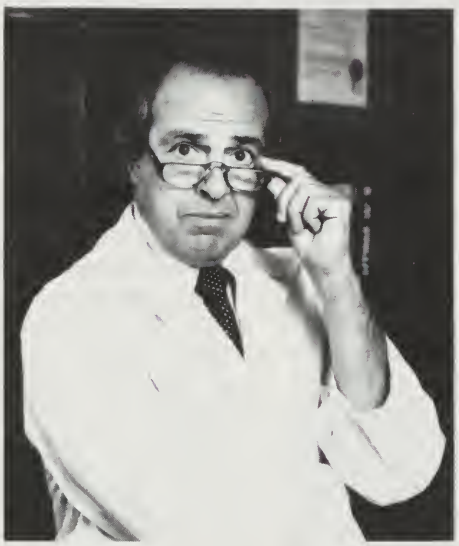
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"...particularly effective in soft tissue disorders including sports injuries,"[1] Rufen stops pain at the site of injury and inflammation, not at the level of central perception. There is no dulled sensorium, no special need for warnings about driving or cautions about use of machinery. Your patient gets fast, effective pain relief...potent anti-inflammatory action...excellent tolerance...*plus* the exceptional economy that only Rufen offers. Next time one of your patients asks for pain relief, let Rufen show you how it measures up.

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See next page for brief summary of prescribing information.

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Dental pain and episiotomy pain are predictable, reproducible "standards" that make possible objective comparisons of effectiveness of different analgesic agents.

- Measured against 15, 30 and 60 mg doses of codeine phosphate in a double-blind study of 287 patients, 400-mg doses of ibuprofen proved "significantly better than codeine on almost all pain intensity, degree of relief and duration of analgesia parameters."[2]
- Measured against a propoxyphene-acetaminophen combination for pain relief after 3rd molar extractions, ibuprofen proved equally effective and caused fewer side effects. Ibuprofen was associated with faster recovery, evidenced by more rapid reduction of trismus and return to normal function.[3]
- Measured against post-episiotomy pain in 30 patients, "ibuprofen was effective in treating the swelling as well as pain...during the first and worst days. Therefore, it is not only the analgesic but also the anti-inflammatory effect of ibuprofen that are the beneficial factors..."[4]

Measure RUFEN® (ibuprofen) against any mild to moderate pain

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• single-entity, peripheral-acting analgesia	• combined drugs act partly through central opioid pathways
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• no narcotic risk, red tape, records	• narcotic precautions required
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References:

1. Hart FD, Huskisson EC, Ansell BM in Hart FD (editor): Drug Treatment of the Rheumatic Diseases, 2nd Ed, Adis Press, Balgov Australia, 1982, p. 30.
2. Rondeau PL, Yeung E, Nelson P: Canad Dent Assoc J 46:433-439
3. Selwyn P and Giles AD: Br Jrl of Clin Practice, Supplement 6, Safe and effective analgesia following dental surgery: A compar of brufen and distalgesic. Pg 87-90. 1980.
4. Taina E: Curr Med Res Opinion, 7:423-428, 1981.

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And Rufen® Measures Up Best

RUFEN® (ibuprofen) Tablets

INDICATIONS AND USAGE: Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in the long-term management of these diseases. Safety and effectiveness have n been established for Functional Class IV rheumatoid arthritis.

Relief of mild to moderate pain. Treatment of primary dysmenorrhea.

CONTRAINDICATIONS: Patients hypersensitive to ibuprofen, or with the syndrome of nasal polyps, angio-edema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory drugs (see WARNIN

WARNINGS: Anaphylactoid reactions have occurred in patients hypersensitive to aspirin (see CONTRAINDICATIONS). Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Pe ulceration, perforation, or gastrointestinal bleeding can end fatally, however, an association has not been established. Rufen should be given under close supervision to patients with a history of upper gastro-intestinal tract disease, and only after consulting the ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be attempted. If Rufen must be given, the patient should be under close supervision for signs of ul perforation or gastrointestinal bleeding.

PRECAUTIONS: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If developed, discontinue Rufen and administer an ophthalmologic examination.

Fluid retention and edema have been associated with Rufen; caution should be used in patients with a history of cardiac decompensation.

Rufen can inhibit platelet aggregation and prolong bleeding time. Use with caution in patients with intrinsic coagulation defects and those taking anticoagulants.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy, this therapy should be tapered slowly when adding Rufen.

DRUG INTERACTION: *Coumarin-type anticoagulants.* The physician should be cautious when administering Rufen to patients on anticoagulants.

Aspirin. Concomitant use may decrease Rufen blood levels.

PREGNANCY AND NURSING MOTHERS: Rufen should not be taken during pregnancy nor by nursing mothers.

ADVERSE REACTIONS: Incidence greater than 1%. Gastrointestinal: The most frequent adverse reaction is gastrointestinal (4 to 16%). Includes nausea*, epigastric pain*, heartburn*, diarrhea, abdominal dis s nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence). Central Nervous System: dizziness*, headache, nervousness. Dermatologic: rash* (including maculopapular type), pruritus. Special Senses: tinnitus. Metabolic: decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS *Incidence 3% to 9%.

Incidence less than 1 in 100. Gastrointestinal: gastric or duodenal ulcer with bleeding and/or perforation, hemorrhage, melena. Central Nervous System: depression, insomnia, confusion, emotional lability, sor nolence, aseptic meningitis with fever and coma. Dermatologic: vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome and alopecia. *Special Senses:* hearing loss, amblyopia (blurred and/or diminished vision, scotomata and/or changes in color vision) [see PRECAUTIONS]. Hematologic: neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive thrombocytopenia with or without purpura eosinophilia, decreases in hemoglobin and hematocrit. Cardiovascular: congestive heart failure in patients with marginal cardiac function, elevated blood pressure. All syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasms (see CONTRAINDICATIONS). Renal: acute renal failure in patients with preexisting significantly impaired renal func decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria. Miscellaneous: dry eyes and mouth, gingival ulcers, rhinitis.

Causal relationship unknown. Gastrointestinal: pancreatitis. Central Nervous System: paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri. Dermatologic: toxic epidermal necrolysis, photo-allergic skin reactions. Special Senses: conjunctivitis, diplopia, optic neuritis. Hematologic: bleeding episodes. Allergic: serum sickness, lupus erythematosus syndrome, Henoch-Schonlein vasculitis. Endocri gynecomastia, hypoglycemia. Cardiovascular: arrhythmias (sinus tachycardia, bradycardia, and palpitations). Renal: renal papillary necrosis.

OVERDOSAGE: Acute overdosage, the stomach should be emptied. Rufen is acidic and excreted in the urine, alkaline diuresis may benefit.

DOSAGE AND ADMINISTRATION: Rheumatoid arthritis and osteoarthritis, including flareups of chronic disease: Suggested dosage 400 mg t.i.d. or q.i.d.

Dysmenorrhea: 400 mg every 4 hours as necessary.

Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for the relief of pain. *Do not exceed 2,400 mg per day.*

CAUTION: Federal law prohibits dispensing without prescription.

Methodist Hospital Opens New Facilities Center

Methodist Hospital, Indianapolis, inaugurated its new $16 million Facilities Center in July. The center will provide all mechanical, electrical and life support systems necessary to meet the 1,105-bed hospital's patient needs for many years. The opening of the center paves the way for Methodist's future expansion on its present 37-acre site.

The center houses the latest state-of-the-art technology and computer-operated equipment.

One major feature is a heat recovery incinerator and boiler that convert solid wastes to steam. The hospital generates 20,000 pounds of burnable trash each day; by burning trash and generating steam that is used throughout the hospital, officials say the system will result in a $30,000 annual savings.



Facilities Center provides mechanical, electrical and life support systems for Methodist Hospital.

An automated laundry facility is capable of handling more than 5 million pounds of linen each year. Laundry and linen is washed and dried at a rate of 2,000 pounds per hour in computer-operated machines that clean 13 tons per eight-hour shift.

The 100,000-square-foot building houses the main power plant; maintenance shops; laundry and linen service; waste disposal with heat recovery system; bio-medical service; environment services; and a materials handling loading dock.



Energy distribution is monitored by computer.



Linens are sorted, weighed, and automatically conveyed, washed and transferred to one of five 300-pound dryers.



Bio-medical technologists, housed in the Facilities Center, service and repair critical care equipment.

FUTURE FILE

Neurology Course in Chicago

"Neurology for the Non-Neurologist" is the subject of a CME course sponsored by Rush-Presbyterian-St. Luke's Medical Center to be held in the Westin Hotel, Chicago, Dec. 8 to 10. AMA credit Category 1 is 20 hours. Write or phone University Office of CME, 600 S. Paulina, Chicago 60612, (312) 942-7095.

2-Week Cytopathology Course

Cytopathology will be the subject of an intensive postgraduate refresher course at The Johns Hopkins University School of Medicine April 18 to 29, 1983. It is designed for pathologists who are certified or qualified by or for the American Board of Pathology (PA). Credit hours are 125 in AMA Category 1. A loan set of slides with texts will be sent to each participant for home study in March and April prior to the course. Apply before Feb. 2, 1983, to John K. Frost, M.D., The Johns Hopkins Hospital, Baltimore, Md. 21205.

Alcohol and Driving Symposium

An International Symposium on Alcohol and Driving, one of the nation's major public health problems, will be held in Washington, D.C., Nov. 17 and 18. About 400 U.S. and foreign experts with in-depth experience in battling drunk driving will attend. (In 1981, drunk drivers killed more than 25,000 people, maimed a half million more, and caused $24 billion in total economic losses.)

Further information on the symposium may be obtained by calling, toll free, 800-221-4954.

Adolescent Medicine

"Adolescent/Young Adult Medicine" will be the subject of a CME conference from Feb. 23 to March 1, 1983, at the Wailea Beach Hotel, Maui, Hawaii, sponsored by the Hurley Medical Center, One Hurley Plaza, Flint, Michigan, 48502. Certified for 20 hours credit. Write the Center or call (313) 766-0142.

Lung Diseases Seminar

"Update: Pulmonary Medicine for the Primary Care Provider" will be conducted Nov. 11 at the Fort Wayne Marriott Inn, 305 E. Washington Center Road.

The seminar, sponsored by the Indiana Thoracic Society, will include sessions on obstructive airways diseases, pediatric pulmonary diseases, pulmonary embolism, and infectious lung diseases.

Registration fee is $20 for Society members, $30 for others. Contact Dennis Alexander, American Lung Assn. of Indiana, 30 E. Georgia St., #401, Indianapolis 46204. Tel: 317-632-3383.

Internal Medicine Course

"The Year in Internal Medicine," the 19th Annual CME Course of Northwestern University Medical School, is oriented for internists, family practitioners and general practitioners. It will be held Jan. 26 to 29 at the Chicago campus of the Medical School.

For more information, write or phone Paula Puntenney, CME, Northwestern University Medical School, 301 E. Chicago Ave., Chicago 60611, (312) 649-8533.

AHA Symposium on Hypertension

"Symposium on Hypertension" will meet on Sunday, Nov. 14, preceding the annual American Heart Association meeting. The place is the Hyatt Regency Dallas. The fee is $75. Five credit hours, Category I, AMA. The program is designed especially for the family practitioner and the internal medicine specialist.

Write or call Diane Averna, St. Paul Hospital, 5909 Harry Hines, Dallas 75235, (214) 689-4588.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Pathology Meeting Slated

The United States-Canadian Division of the International Academy of Pathology will hold its Annual Meeting from Feb. 28 to March 4, 1983, at the Atlanta Hilton, Atlanta, Ga.

For details write Dr. Nathan Kaufman, 1003 Chafee Ave., Augusta, Ga. 30904, (404) 724-2973.

Coronary Artery Disease Update

The 2nd Annual Coronary Artery Disease Update of the University of Wisconsin Medical School will be held in Madison, Dec. 3 annd 4. It is designed for primary care physicians and specialists in coronary disease.

Write to Sarah Z. Aslakson, 465B WARF Bldg., 610 Walnut St., Madison, Wisc. 53706, (608) 263-2856.

Clinical Allergy Course

"Clinical Allergy for the Practicing Physician" is the subject of a CME course to be conducted by the Washington University School of Medicine in St. Louis, Nov. 18 to 20. It is approved for 19.5 hours Category I AMA and AAFP prescribed credit.

For details write or call Loretta Giacoletto, Office of CME, Box 8063, 660 South Euclid, St. Louis, Mo. 63110, (314) 454-3873.

Common Ear Problems Seminar

A seminar dealing with common otologic problems encountered in an office practice setting will be conducted Nov. 3 from noon until 5 p.m. at Community Hospital, Indianapolis.

For details about the seminar, sponsored by the Wright Institute of Otology and Community Hospital of Indianapolis, call 317-353-5679.

Industrial Audiology Seminar

The annual Seminar for Industrial Audiology, sponsored by the Wright Institute of Otology and Community Hospital of Indianapolis, will be conducted Oct. 16-17 in Indianapolis.

For information, call 317-353-5679.

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One of man's most amazing explorations and scientific adventures, the successful Gemini flight program was a triumph of imagination and—teamwork. Two men learned to operate in space, to rendezvous, to dock, and to work outside their spacecraft in the hard vacuum of outer space. Not only did they coordinate their efforts with ground backup, they also complemented each other's activities within the close confines of the space capsule.

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Suppositories/Cream with Hydrocortisone Acetate

*The #1 physician-prescribed product for hemorrhoids and other common anorectal disorders***

- ☐ *Antiinflammatory, to relieve edema, burning, itching, pain*
- ☐ *Astringent, to help promote healing*
- ☐ *Emollient, for easier bowel movements and soothing relief of local trauma*

And, when pain is a special problem, Anusol Ointment offers the benefits of the anesthetic, pramoxine HCl.

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Pre-Moistened Hemorrhoidal/Vaginal Pads

The #1 hemorrhoidal pad† for added external relief and gentle cleansing of fecal residue

- ☐ *Soothes, cools, comforts the irritation and itch of hemorrhoids and other common anorectal disorders*
- ☐ *Hygienic rectal wipe—an integral part of the anorectal regimen*

Once pain and inflammation subside, for dual action recommend regular ANUSOL®—to maintain patient comfort—and TUCKS®—to maintain patient anorectal hygiene.

**Meeting of Am Soc Colon/Rectal Surgeons, May 1980.*
***Based on total prescriptions filled for hemorrhoidal preparations during the first three quarters of 1981. The National Prescription Audit, IMS America Ltd, Sept 1981.*
†1981 data from leading marketing research organization.

PD-85-JA-0867-P-1 (2-82)

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WARNER LAMBERT

ANUSOL-HC® Suppositories/ ANUSOL-HC® Cream

Before prescribing, please see full prescribing information. A Brief Summary follows:

Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in external and internal hemorrhoids, proctitis, papillitis, cryptitis, and fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

CONTRAINDICATIONS

Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

WARNINGS

The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

PRECAUTIONS

General

Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy

See "WARNINGS"

Pediatric Use

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

DOSAGE AND ADMINISTRATION

Anusol-HC Suppositories—Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

Store between 59°-86°F (15°-30°C)

1089G010

Candidates for nutritional therapy..

10,000,000 alcoholics. Ethanol may produce many effects that together bring about nutritional deficiencies, so that alcoholism affects nutrition at many levels.[1]

25,500,000 geriatric patients. The older patient may have some disorder or socio-economic problem that can undermine good nutrition.[2]

23,500,000 surgica patients. Nutritional stat can be compromised by the trauma of surgery; and some operations interfere with the ingestion, digestion and absorp tion of food.[3]



Before prescribing, please consult complete product information, a summary of which follows:
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Indications: Prophylactic or therapeutic nutritional supplementation in physiologically stressful conditions, including conditions causing depletion, or reduced absorption or bioavailability of essential vitamins and minerals; certain conditions resulting from severe B-vitamin or ascorbic acid deficiency; or conditions resulting in increased needs for essential vitamins and minerals.
Contraindications: Hypersensitivity to any component.
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Precautions: *General:* Certain conditio may require additional nutritional supp mentation. During pregnancy, supplem tation with vitamin D and calcium may required. Not intended for treatment severe specific deficiencies. *Informatio for the Patient:* Toxic reactions have be reported with injudicious use of certai vitamins and minerals. Urge patients t follow specific dosage instructions. Ke out of reach of children. *Drug and Tre ment Interactions:* As little as 5 mg pyr doxine daily can decrease the efficacy levodopa in the treatment of parkinso ism. Not recommended for patients undergoing such therapy.
Adverse Reactions: Adverse reactions been reported with specific vitamins a

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5000,000 hospital patients with infections.[4] Many are anorexic and may have a markedly reduced food intake. Supplements are often provided as a prudent measure because the vitamin status of critically ill patients cannot be readily determined.[3]

The incalculable millions on calorie-reduced diets. Patients ingesting 1000 or fewer calories per day could be at high risk because this intake may not supply most nutrients in adequate amounts without supplementation.[5]



minerals, but generally at levels substantially higher than those in Berocca Plus. However, allergic and idiosyncratic reactions are possible at lower levels. Iron, even at the usual recommended levels, has been associated with gastrointestinal intolerance in some patients.

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References: 1. Shaw S, Lieber CS: Nutrition and alcoholism, chap. 40, in *Modern Nutrition in Health and Disease*, edited by Goodhart RS, Shils ME. Philadelphia, Lea & Febiger, 1980, pp. 1220, 1237. 2. Watkin DM: Nutrition for the aging and the aged, chap. 28, in *Modern Nutrition in Health and Disease, op. cit.*, p. 781. 3. Shils ME, Randall HT: Diet and nutrition in the care of the surgical patient, chap. 36, in *Modern Nutrition in Health and Disease, op. cit.*, pp. 1084, 1089, 1114. 4. Dixon RE: *Ann Intern Med 89* (Part 2): 749-753, Nov 1978. 5. Committee on Dietary Allowances, National Research Council: Recommended Dietary Allowances, ed 9. Washington, National Academy of Sciences, 1980, p. 13.

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BOOK REVIEWS

Atlas of Radiologic Anatomy

Third Edition, by Lothar Wicke, M.D. Copyright 1982, Urban & Schwarzenberg, Baltimore-Munich. 239 pages, including 128 radiographs and 128 line drawings. $19.50.

In the study of medicine we learn formal anatomy and later are introduced to clinical radiography. Yet the correlation of regional anatomy with the plethora of x-rays seen in clinical medicine is an art and science in itself. This volume, the third edition since 1979, is from Vienna and admirably fulfills the need for a specific knowledge of normal radiographic anatomy.

It consists of 12 sections from the Skull to Gynecologic Radiography, including all the major systems. On each page is a very clear negative x-ray and on the facing page a simple but inclusive line drawing of this anatomy. It is done with characteristic European or Teutonic, if you will, succinct thoroughness. I always admire the European textbooks for this quality.

Recommended, as the Preface states, as a basic reference for medical students, radiologic technicians, and radiologists-in-training, as well as other, older (more mature) physicians in need of increased knowledge of x-ray correlative anatomy.

Rodney A. Mannion, M.D.
LaPorte
Urological Surgery

Coronary Artery Disease

Edited by William P. Santamore and Alfred A. Bove. Copyright 1982, Urban & Schwarzenberg, Baltimore-Munich. 296 pages, with illustrations, $39.50.

Instead of the fixed concentric stenoses that develop over decades, a "new" focal point about coronary pathophysiology is emerging. Abundant data now reveal that about one-third of human coronary stenoses are compliant and dynamic. Normal coronary arteries exhibit spontaneous rhythmic contractions about once per minute. Hence, changes in vasomotor tone can affect myocardial perfusion even when no change in oxygen demand occurs. This text focuses on the contribution of large vessel vasoactivity to coronary disease, angina, and myocardial infarction.

Because caliber changes are a frequent event in the normal function of the coronary arteries, an important question arises: Does coronary vasoactivity contribute to the atherosclerotic process? In response to this question, various mechanical, biochemical, and histological events that may produce coronary lesions are reviewed. Also examined is the constant communication that goes on between the blood and the vessel wall, e.g., the circumstances that cause interactions between a stenosis and various blood-borne mediators of constriction.

Since this text grew out of a symposium sponsored by the Physiological Society of Philadelphia, some sections present more details about coronary pathophysiology than the average physician will care to digest. But the book as a whole is worth selective reading because it helps rescue coronary spasm from medical history's side show.

Alan T. Marty, M.D.
Evansville
Cardio-Vascular Surgery

The ISI Press will publish *How to Write and Publish Papers in the Medical Sciences* by Edward J. Huth, editor of the *Annals of Internal Medicine.* It is a practical detailed guide through all the steps in getting a paper published in clinical journals of medicine and closely related fields. The book is written from the point of view of an experienced editor who knows why papers get accepted and what defects in papers account for many rejections. Write to ISI Press, 3501 Market St., Philadelphia, Pa. 19104.

Dell Publishing has released *The Health Food Shopper's Guide* by Harald Jay Taub. Taub is the former executive editor of *Prevention Magazine* and is the current editor at the Institute of Nutritional Research. The health food industry grosses more than $3 billion a year and rates a guide book to instruct the shopper in the field of health food and vitamins.

Trends in Autonomic Pharmacology

Volume 2, edited by Stanley Halsner. Copyright 1982, Urban & Schwarzenberg, Baltimore-Munich. 60 figures, 29 tables, 563 pages.

The concept of alpha and beta adrenotrophic receptors was originated by Raymond P. Alquist in 1948 as he states in his "Recollections," which form the first chapter in this book. He further relates that the B blocker of the adrenoceptor, known now as Propanolol or Inderal, was for years a "drug looking for a disease."

This volume is technical physiology as it impinges on the mechanism of the autonomic system and, as such, is beyond my desire to understand fully so I won't pretend that I have read all of its 563 pages. Let me say only that it is a symposium of many authors from countries of the Far East, Europe and America. It consists of seven large sections including Neurotransmission, Receptors, and Regulatory Processes (to name only three).

A book recommended to medical and pharmacological students at all levels of education. An interesting side note is that Alquist accused the FDA of unethical practices when it requested an American B Blocker double blind study. He thinks those patients in the study who died without Propanolol, died in vain.

Rodney A. Mannion, M.D.
LaPorte
Urological Surgery

Viking Press announces *Addictive Drinking: The Road to Recovery for Problem Drinkers and Those Who Love Them.* It is written by Clark Vaughan, an addictive drinker who has been there and is dedicated to helping others. "It is a book, not just for drinkers who wish to get dry, but for those who wish to help another to do so." Vaughan covers all the methods and programs to sobriety and all the pitfalls encountered on the way, including advice on what to say when offered a drink. He says, "No, thank you" may not be enough. $14.95.

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NEWS NOTES

Governor Requests End to HSAs

Governor Robert D. Orr has requested that the United States Department of Health and Human Services (DHHS) end designation and funding of the three federally funded health systems (planning) agencies (HSAs) in Indiana, according to Dr. Ronald G. Blankenbaker, state health commissioner. The Governor's action reflects a controlled process of defederalizing the statewide health planning and development program on-going during the last three years.

In essence, the request is for "single agency" status for Indiana under requirements of the National Health Planning and Resources Development Act. It would result in the end of federal funding for the HSAs and their formal closeout by DHHS. The State Board of Health would then be the only federally funded health planning agency in the state. Under terms of a DHHS approval of the Governor's request, the State Board of Health would be responsible for both the state and local aspects of the federal program.

Dr. Blankenbaker noted that the Governor did not take such action last year when it was made an option for states by federal health planning amendments, preferring to bring about an orderly transition rather than to simply cut the three areawide agencies out of the program quickly. The action is being taken now partially as a result of a strong recommendation to the Governor by the Indiana General Assembly. The request was included in amendments the Legislature passed this year to the state's health planning law.

"Our state's health planning law, as it was amended this year, now calls for a mandatory system of determining need for health services and facilities based upon good, sound assessments of the state's health system and the health status of its people. The new law also requires the development of plans which outline how those needs can be met in the various communities of our state," Dr. Blankenbaker said.

Physical Fitness Pamphlet

"Listen to Your Body: Exercise and Physical Fitness" is the subject of Public Affairs Pamphlet No. 599. The author is Irving R. Dickman. Advice on planning an exercise program and cautions about frequency, duration and medical advice are all outlined. The pamphlet is available for 50 cents from Public Affairs Committee, 381 Park Ave., South, New York, N.Y. 10016.

Eye Health, Safety Magazine

Sightsaving is a new magazine for professionals concerned with eye health and eye safety. It is being introduced by the National Society to Prevent Blindness. It will offer insights on current eye research findings, report on new treatments, practices, programs, and results of studies, and provide a forum for exchange of experiences and information on preventing blindness. For a free trial copy write to Sightsaving, 79 Madison Ave., New York City, New York, 10016.

Diagnostic Microbiology Atlas

Schneierson's Atlas of Diagnostic Microbiology, Eighth Edition, with 200 color plates, has been published by Abbott Laboratories. It is a visual guide to bacteria, fungi, and parasites most commonly encoutered in pathology, as well as species seen rarely. It contains 80 pages of photographs and textual discussions of 66 genera of microorganisms. The atlas is available for $2.75, prepaid, from Abbott Laboratories, Professional Relations D-383, Abbott Park, North Chicago, Ill. 60064.



I'm sorry, but he has a meeting with his pier group.

Cancer Corner . . .

CONTINUED FROM PAGE 734

symptoms and findings may have breast cancer, all such women should have a thorough breast examination including mammography and any other diagnostic study needed to determine if cancer is present.

3. Under all circumstances, the mammographic technique used should produce the greatest possible detail and resolution, with the lowest amount of radiation needed to provide high quality images. Mammography should be performed and interpreted by experienced, well trained individuals using modern, carefully monitored equipment and thorough physical examinations. Techniques should be changed as new knowledge and improved technology warrant.

4. Physicians must be aware of the limitations of mammography and should remember that the x-ray study of the breast is a complementary procedure and most valuable ally in evaluating a breast problem.

When physical examination reveals findings sufficient to advise biopsy, a biopsy should be performed even in the presence of a mammogram described as normal.

The BCDDP report was prepared by Larry Baker of Kansas City, associate professor in the Department of Community Health at the University of Kansas Medical Center, and chairman of the 13-member Project Data Management Advisory Group which analyzed and interpreted the data. The report was commissioned by NCI.

The American Cancer Society's 25-member Task Force on Breast Cancer Control is chaired by Edward Scanlon, a past national president of the Society and chief of surgery at Evanston, Ill., Hospital.

ere and There . . .

. . . **Dr. Peter R. Petrich** of Attica the new chairman of the AMA Coun- l on Constitution and Bylaws.

. . . **Dr. John D. Pulcini** of Evans- ille is this year's recipient of ISMA's hysician Community Service Award.

. . . **Dr. Ott B. McAtee** of Madison as been named a Paul Harris Fellow y the Madison Rotary Club; it is the ighest honor that can be given a Rotary ember.

. . . **Dr. Helen G. Czenkusch,** newly naugurated president of the Marion ounty Medical Society, is the first oman ever to hold that office.

. . . **Dr. Evan L. Lehman** of Indi- napolis has been elected to member- hip in the American Society for olposcopy and Cervical Pathology.

. . . **Dr. Jack D. Summerlin** has been ppointed by Governor Orr to the In- liana School for the Deaf advisory ommittee.

. . . **Dr. William S. Mullican,** an vansville cardiologist, has retired from rivate practice.

. . . **Dr. George A. Donnally** of Mooresville has been named a diplo- nate of the International Board of Proctology.

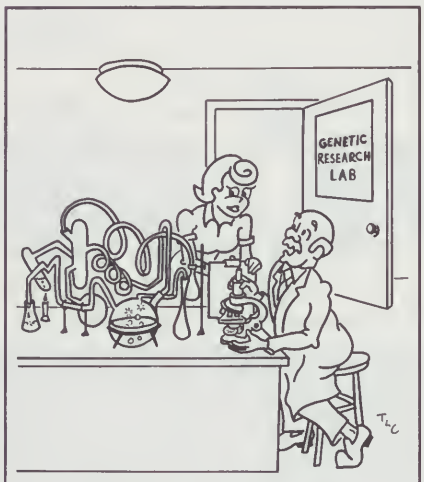
. . . **Dr. Ronald E. Aigotti** of South Bend was guest speaker at the August meeting of Families Facing Cancer in Mishawaka.

. . . **Dr. Harley P. Palmer,** a Frank- lin pathologist, participated in a public alcohol and drug abuse workshop in Martinsville in August.

. . . **Dr. Hunter A. Soper** of Indi- anapolis has been appointed by Gov- ernor Orr to the Indiana Health Facilities Council.

. . . **Dr. Daniel P. Akin** of New Al- bany recently spoke to residents of Riv- erview Towers in New Albany about laser ear surgery.

. . . **Dr. Milton W. Erdel** and **Dr. A. Earl Applegate,** both of Frankfort, have retired from practice.



I have mixed feelings about these designer genes.

. . . **Dr. D. Logan Dunlap** of South Bend and **Dr. Tae Gee Kiehm** of Mis- hawaka conducted an "Ask the Doctor" learning clinic in July for the St. Joseph County Diabetes Association.

. . . **Dr. Wymond B. Wilson** of Mentone has been presented the Dis- tinguished Service Award by the Flying Physicians Association, of which he has been a member nearly 25 years.

. . . **Dr. Ronald P. Pavelka** of Mun- ster served as moderator in August for a seminar for parents of athletes. Among the participants was **Dr. Jerald E. Smith** of Munster.

. . . **Dr. David K. Johnloz** of Bloomington has been elected to fel- lowship in the American College of Physicians.

. . . **Dr. Charles Fisch** and **Dr. R. Joe Noble,** both of Indianapolis, have been named to the scientific program committee of the American College of Cardiology. The College will meet in New Orleans, March 20-24, 1983.

. . . **Dr. A. R. Florcruz** of Highland has been appointed to the Lake County Mental Health Clinic Board.

. . . **Dr. Donald D. Graber** of Ev- ansville has been named medical di- rector of the alcohol treatment center at Elkhart General Hospital.

. . . **Dr. John D. Miller** has been elected president of the Caylor-Nickel Medical Clinic, Bluffton.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Bechtol, Lavon D., Indianapolis
Beeler, Richard T., Indianapolis
Blickenstaff, Jeffrey L., Muncie
Buttingham, Richard E., Bloomington
Chernish, Stanley M., Indianapolis
Crawford, John N., Fort Wayne
Day, Gustavo D., Evansville
Dizon, Gualberto R., Munster
Dubois, Don R., Greenwood
Hahn, Paul S., Munster
Hampton, James N., Argos
Harper, James W., East Chicago
Healy, Cornelius E., Evansville
Heaton, Elton, Madison
Kellams, Jeffrey J., Indianapolis
Kight, Jerry L., Indianapolis
Klassen, Otto D., Elkhart
Morrison, Andrew L., Indianapolis
Patel, Kantilal K., Connersville
Phillips, David L., Indianapolis
Price, Robert W., Elkhart
Roeske, Nancy C. Arnold, Indianapolis
Rogge, James D., Indianapolis
Roth, Bertram S., Indianapolis
Roth, James R., Wolflake
Scheimann, Lois A. Greider, Valparaiso
Sneary, Max E., Avilla
Stettbacher, Lynne L., Fort Wayne
Swanson, Richard T., Evansville
Underwood, George M., Lafayette
Volan, George J., Merrillville
Walthall, Gerald C., Indianapolis
Weinland, George C., Columbus

NEWS NOTES

Fetal Alcohol Syndrome

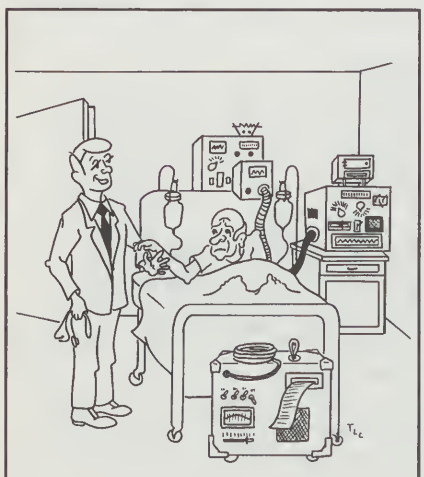
Nutritional deficits and congenital abnormalities, which are observed in human newborns who merit the diagnosis "Fetal Alcohol Syndrome," have been reproduced in laboratory rats by feeding alcohol to pregnant rats at a dosage comparable to two drinks per day for a human.

The damage appears to be in the placenta which when challenged daily by alcohol does not transmit nutrients in normal amounts. Zinc is the one nutrient especially pinpointed. Its role in synthesis of protein is important to fetal development.

Vanderbilt University School of Medicine and eight other institutions are receiving grants totaling $1 million in a program sponsored by Bristol-Myers and its Mead Johnson & Company subsidiary.

More Agent Orange Research

The VA has approved and funded 10 additional research projects to determine the health-related effects of Agent Orange. The investigations will consist mostly of animal studies but will also utilize human tissue cultures. Types of research studies will vary in the some nine different laboratories in conformity with the response to a VA invitation to scientists to suggest new methods and innovative protocols.



Trust me. A tamponade will not cause toxic shock syndrome.

'Mended Hearts' Group Formed

"Mended Hearts" is a recently incorporated voluntary organization of professionals, businessmen, civic leaders and individuals who have had open heart surgery. Its Northwest Chapter has been organized at St. Anthony's Medical Center in Crown Point.

The chief function of "Mended Hearts" is to educate patients who are contemplating open heart surgery. Preventive and rehabilitative aspects of heart disease are discussed. Activities include educational and advisory work with prospective open heart patients (with the approval of the patient's physician), as well as aid to patients' families, and assistance to physicians, surgeons and hospitals.

The Northwest Chapter of Mended Hearts was organized on the initiative of Dr. Felipe Chua.

ASIM Offers Medicare Brochure

"Medicare: What It Will and Will Not Pay For" is the title of a brochure published by the American Society of Internal Medicine for the instruction of elderly patients. It has been updated annually and published for several years. It is now available to all practicing physicians. The prices are $20/100, $90/500 and $180/1000.

Orders, with payment, may be sent to ASIM, Literature Order Dept. MJ, 1101 Vermont Ave., NW, Suite 500, Washington, D.C. 20005. A free copy is available on request by sending a self-addressed, stamped, legal size envelope.

Patient Management Award

The Franz J. Ingelfinger Management Medicine Award is presented each year to the primary care physician who, in the opinion of the judges, has done the most to improve the delivery of that aspect of patient care which lies beyond the art and science of medicine—the area named management medicine.

A copy of the nominating form may be obtained by writing Craig Borders, Editor, Management Medicine Department, Patient Care Communications, 16 Thorndal Circle, Darian, Conn. 06820.

Disabled Physicians Directory

A resource directory for physicians with physical disability is being compiled by the St. Paul-Ramsey Medical Education and Research Foundation. The purpose of the project is to form a voluntary group of physicians to provide information and referral services as well as support and advocacy to physicians who incur the same disability and need specific information.

All physicians with physical disability, no matter how small, are encouraged to write to Frank C. Zondlo, M.D., St. Paul-Ramsey Hospital Medical Education and Research Foundation, 640 Jackson St., St. Paul, Minn. 56101.

Cardiology Journal Planned

The American College of Cardiology will begin publishing a new journal in January 1983. Called *Journal of the American College of Cardiology,* it will feature review articles by internationally recognized authorities on research developments that have led to improved patient care.

Dr. Simon Dack of New York City will be editor-in-chief and Dr. Charles Fisch of Indianapolis will be one of three associate editors. Dr. Fisch, guest editor of the inaugural issue, will be one of 34 authors featured in that issue; he will write on "Electrocardiography of Arrhythmias: From Deductive Reasoning to Laboratory Confirmation."



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OBITUARIES

John A. Davis, M.D.

Dr. Davis, 74, a retired Flat Rock physician, died May 3.

He was graduated from Indiana University School of Medicine in 1932 and retired in December 1977.

Dr. Davis, a member of the American Academy of Family Physicians, was a Shelby County commissioner from 1968 to 1976. He was named Outstanding Citizen in 1961 and, later, a Sagamore of the Wabash by then-Governor Otis Bowen. He was a past president of the Shelby County Chamber of Commerce and was active in county and ISMA medical activities.

B. Jay Thompson, M.D.

Dr. Thompson, 57, a Marion General Hospital pathologist, died July 27 at Parkview Memorial Hospital, Fort Wayne.

He was a 1949 graduate of the University of Pittsburgh School of Medicine and was an Army veteran of World War II and the Korean War.

Dr. Thompson was a member of the American Society of Clinical Pathologists and of the College of American Pathologists. He was certified by the American Board of Pathology.

John J. Gallinatti, M.D.

Dr. Gallinatti, 51, a Crown Point physician, died Aug. 22 at St. Mary Medical Center, Gary.

He was a 1956 graduate of Indiana University School of Medicine.

Dr. Gallinatti was a member of the American College of Emergency Physicians.

Theodore A. Hill, M.D.

Dr. Hill, 74, a Michigan City psychiatrist, died Aug. 11.

He was a 1953 graduate of the Loma Linda University School of Medicine, Los Angeles. He was a veteran of World War II and the Korean War.

Dr. Hill was a member of the American Psychiatric Association and was certified by the American Board of Psychiatry and Neurology. He was a former superintendent of Beatty Memorial Hospital, Westville.

Paul S. Yocum, Sr., M.D.

Dr. Yocum, 79, a retired Gary physician and surgeon, died July 17 in Coral Gables, Fla., where he had lived following his retirement.

He was a 1925 graduate of Indiana University School of Medicine.

Dr. Yocum was president of the medical staff at Gary Methodist Hospital in 1946, and served 14 years as a Lake County deputy coroner. He was a member of the ISMA Fifty Year Club.

Francis L. Land, M.D.

Dr. Land, 62, a retired physician who practiced in Fort Wayne from 1952 to 1966, died Aug. 24 at his home in McLean, Va.

He was a 1950 graduate of Indiana University School of Medicine.

Dr. Land moved to Washington, D.C., in 1966 where he eventually became head of the Medicaid program. Before retiring last year, he was a director at Georgetown University, where he established the Georgetown University-Providence Hospital family practice residency program.

While a member of the Allen County Medical Society, Dr. Land served as an AMA delegate, as county society president, and as chairman of the former ISMA Commission on Medical Education and Licensure.

Helen D. Van Vactor, M.D.

Dr. Van Vactor, 65, Indianapolis, died Aug. 21.

She was a 1942 graduate of Indiana University School of Medicine.

Dr. Van Vactor was a member of the American College of Physicians and the American Society of Internal Medicine. She was certified by the American Board of Internal Medicine.

Fred N. Daugherty, M.D.

Dr. Daugherty, 85, a retired Crawfordsville physician and surgeon, died at his home Aug. 18.

He was a 1926 graduate of Indiana University School of Medicine and was an Army veteran of both World Wars.

Dr. Daugherty was a member of the ISMA Fifty Year Club.

Dean R. Bahler, M.D.

Dr. Bahler, 65, a retired Crawfordsville physician, died Aug. 19 at Community Hospital, Indianapolis.

He was a 1950 graduate of the University of Chicago's Pritzker School of Medicine. Until he retired July 1, he had served 13 years as company physician for R. R. Donnelley & Sons Co.

Dr. Bahler, a specialist in occupational medicine, was a member of the Industrial Medical Association. He was a Navy veteran of World War II.

Meyer W. Kobrin, M.D.

Dr. Kobrin, 68, a former Gary physician who more recently had lived in Highland, died Aug. 21.

He was a 1938 graduate of the University of Illinois College of Medicine and was an Army veteran of World War II.

Dr. Kobrin was a former president of Gary Methodist Hospital. He was a member of the American College of Allergists and the American Academy of Family Physicians.

Fred L. Wilson, M.D.

Dr. Wilson, 77, a Terre Haute physician, died Aug. 9 at Union Hospital, Terre Haute.

He was a 1930 graduate of Indiana University School of Medicine and was a World War II veteran.

Dr. Wilson, a past president of the Indiana Heart Foundation, was a member of the American Society of Internal Medicine and of the Terre Haute Academy of Medicine. He became a member of the ISMA Fifty Year Club in 1980.

James F. Peck, M.D.

Dr. Peck, 59, a Princeton physician and surgeon, died Aug. 6.

He was a 1945 graduate of Indiana University School of Medicine.

Dr. Peck was chief of the medical staff at Gibson General Hospital, Princeton, at the time of his death. He was a three-time past president of the Gibson County Medical Society. He was a member of the American Academy of Family Physicians and of the American Society of Abdominal Surgeons.

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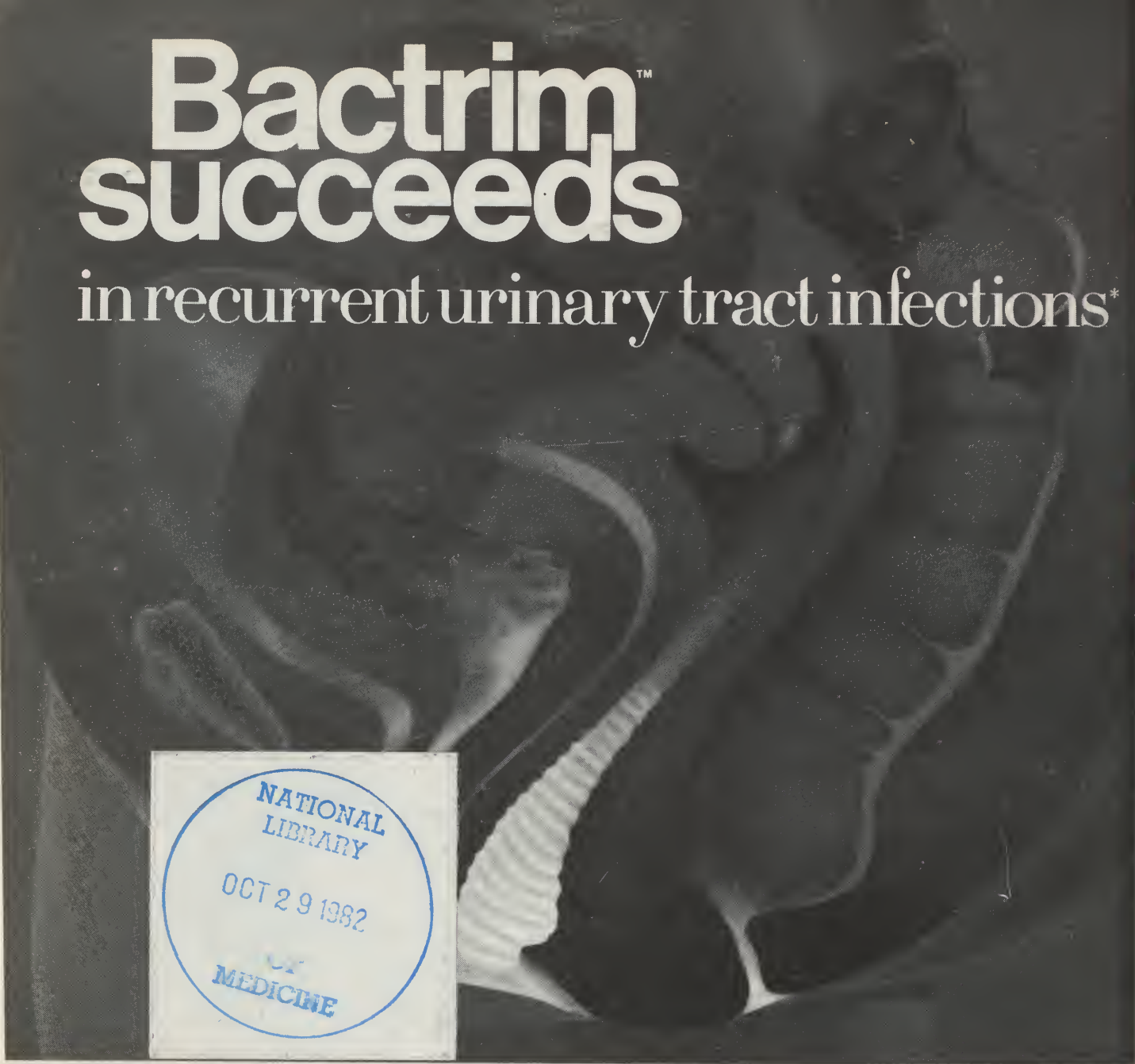
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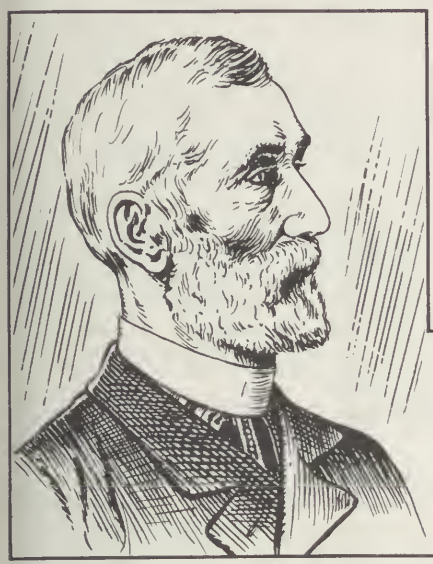
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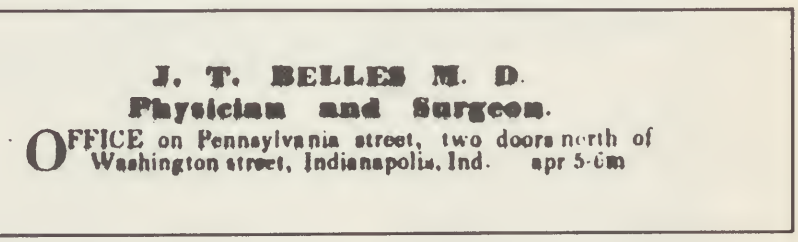
MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

This page of Notes concerns Dr. Joshua T. Belles, of Spencer, Indiana, his daughter Helen, and her son Harold.

Relatively little is to be found regarding Dr. Belles, but if we look at the three generations in terms of the character displayed by the daughter and the grandson, the doctor also must have been a remarkable person.





Dr. Joshua Tarleton Belles was born in Kentucky in 1826, and came to Indiana soon after. The date of his death is unknown. He was a charter member of the Indiana State Medical Society (1849), and his name appears in the membership rolls until 1884. His medical education was achieved first by means of the preceptor system, with Dr. Livingston Dunlap in Indianapolis (founder of Wishard Memorial Hospital at Indiana University Medical Center—Museum Notes, November and December 1977), and later at the Indiana Central Medical College, where he obtained his M.D. degree in 1851.

For a brief period Dr. Belles practiced in Indianapolis, but ultimately moved to Spencer in Owen County, where he spent the major portion of his professional life. He married Julia Reid of Indianapolis in March 1850, who bore him five children, one of whom, a daughter named Helen, was born in 1856. Helen grew to young womanhood in Spencer, and developed an interest in art and music. She married a young musician at the age of 19, but was a widow within six months. It was then that Dr. Belles arranged through friends in Paris for his daughter to study in Europe. The year was 1876.

In due time Helen, who was a very talented young woman, studied voice and sculpture. She became acquainted with numerous influential, artistic, and literary persons, among whom was a young Englishman, a publishing executive four years her senior, with whom she fell in love. They were married, and lived the remainder of their lives in London.

Helen was 38 when her son Harold was born in 1894. He received an excellent education, and was studying at Oxford when World War I commenced in 1914. He was pressed into military service immediately, and remained on active duty until wounded in the Battle of the Somme in 1916. He credits his mother for his recovery. "In the first World War she literally saved my life. After the Battle of the Somme, I was shipped back some weeks after I was wounded, in a very dangerous condition . . . I had a shrapnel wound in my right knee, and a series of machine gun bullets had penetrated my pelvis . . ."

Helen immediately sensed the life-threatening danger posed by his infected wounds. She circumvented military etiquette, and saw to it that his injuries were promptly and properly treated by a private surgeon. This required a considerable bucking of the system. "My life was saved by my mother's action." Harold commends American motherhood when he adds ". . . No one who has not experienced it can realize the determination of an American mother defending her children . . ."

Harold had nothing but words of praise for his mother. "My mother was a woman of unusually strong character. She had high standards, and demanded equally high performance from all about her . . . I can truthfully say that I owe everything, all through my life, to my mother's devotion and support . . ."

The character and determination of the mother found expression in the son's own behavior throughout his long and distinguished career. Harold Macmillan entered politics at the end of World War I, and became Prime Minister of Great Britian from 1956 to 1963. In 1958 he was awarded an honorary degree from DePauw University.

The Indiana Central Medical College (1849-1852) was organized by the Indiana Asbury University (now DePauw), so that Dr. Belles' M.D. degree connects him with DePauw. "It was primarily through this connection that Prime Minister Macmillan was secured to deliver the commencement address at DePauw in 1958, in which he spoke proudly of his Hoosier ancestry." (Manhart, G. B., *Indiana Magazine of History,* 56:112, 1960).

The only photographs found of Dr. Belles and his daughter Helen are those in Macmillan's book, *Winds of Change* (Harper and Row, 1966).

The newspaper advertisement of Dr. Belles reproduced here was found in *The Indianapolis Locomotive*, April 12, 1851, page 3. (This was soon after his graduation from the Indiana Central Medical College.)

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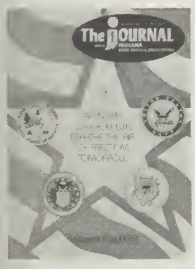
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ABOUT THE COVER

THE JOURNAL is proud to join the nation in honoring its military veterans. One of our Indiana physicians, Dr. C. Richard Bowers of Anderson, offers four reasons why we Americans will breathe the air of freedom tomorrow, beginning on page 774.

COVER BY FRED KINGHORN

THE JOURNAL of the Indiana State Medical Association is published monthly in the interests of the medical profession of Indiana. No copyright claimed. Copyright rests solely with authors, who are responsible for statements made in their articles. Views expressed do not necessarily reflect the opinions of the editors. Scientific and editorial contributions are accepted for exclusive publication, subject to editorial requirements.

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Four Reasons Why . . .

The tribute to our Armed Forces on the opposite page was composed by Dr. C. Richard Bowers, an Anderson surgeon who says, "Two of my greatest interests are my country and tennis."

Although Veterans Day 1982 is an appropriate occasion to feature the "Four Reasons" tribute, it first appeared last summer in a souvenir program produced by sponsors of the U.S. Open Clay Courts Tournament, conducted in Indianapolis.

"For the past few years, I've sponsored a box of seats at the tournament," Dr. Bowers explained. "Such sponsors are entitled to a full-page 'advertisement.' This seemed to present a nice opportunity for me to sound off in a few areas about which I feel strongly. Hence, my ad."

In May, he received notification asking whether or not he had an "ad" to submit for the program.



C. Richard Bowers, M.D.

For several days, Dr. Bowers, a 1947 graduate of Johns Hopkins University School of Medicine, "ruminated ideas about a tribute to the four major service branches. I had nothing definite until, ironically, Memorial Day. While attending church service that day, I was extremely disappointed at hearing no mention whatever of those men and women in whose honor that day is observed.

"My hackles went up near the end of the service at the slight to our hallowed veterans and 'Four Reasons' exploded in my mind." (Dr. Bowers is a World War II Navy veteran, a Korean War era Air Force veteran, and, from 1966 to 1972, served several tours as an AMA volunteer physician in Vietnam.) "I jotted 'four reasons' on the church bulletin, then freedom, then other key words, in a matter of minutes.

"I drove home, sat at my breakfast table, and 'Four Reasons' simply flowed so easily onto a single piece of paper—I saved the original, and on comparing it with the final typewritten version, noted I had changed three words, and added one phrase of 10 words to the summary. Otherwise, it is verbatim to the original. I guess the message that erupted in my head during that Memorial Day service clearly satisfied my intentions."

Dr. Bowers recalled that he had some difficulty locating the service logos, "but Jane Merritt finally located a Coast Guard crest for me, and we were in business . . . . Jody Toth, one of the lithograph people, found the Statue of Liberty silhouette for our background—it seemed perfect. So, that's the story of 'Four Reasons.' "

The story, Dr. Bowers modestly declared, "is not at all exciting or unusual, but it's from the heart of a patriot."

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—you may journey across borders of any of these 50 states anytime you wish without harrassment by border guards or national police, and,

—you will enjoy the same equal rights, opportunities and safety in all 50 states;

—you will **always** have a greater choice of foods, appliances, domiciles, and vehicles here than in any other nation in the world;

—you may respect or despise any elected official in this nation (including the President) and so tell him or her anytime, privately or publicly, and,

—you may openly work like hell to reelect or defeat such officials without fear of retribution;

—you may also openly labor to change existing statutes or formulate new laws free of governmental interdictions;

—America's borders stand as the most awesome barriers in the world to all aggressors, and have not been breached in over 40 years;

—the Stars and Stripes flash that message of hope to both freemen and the oppressed, every day, world-wide;

—you are relaxing here under a warm sun watching the finest tennis in the world, and,

—you may cheer, boo, browse, stay or leave, as you wish, knowing you will sleep as freemen tonight and walk tall as freemen tomorrow;

—you may indulge yourself and your children in the pursuit of any religious liturgy of your choosing;

—you may pray, play or party as you wish;

—The United States Constitution stands as the most respected document of mortal origins in existence today;

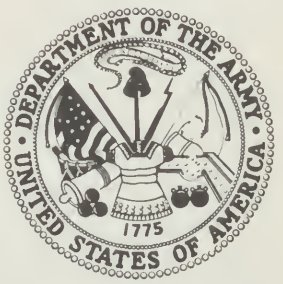
—you can plan all your own tomorrows in the United States.

These four reasons stand quietly and without end, meaningfully vigilant, the **last best friends** of all of the world's free peoples, and the last desperate hope for the enslaved. Learn them; know them well. The next time you see one of them you might even smile and say "thanks";—that just might make the day for both of you.









WHAT'S NEW?

ADAC Laboratories have introduced the first mobile digital radiography system. It enables hospitals of all sizes and x-ray requirements to utilize the clinical and economic benefits of this new medical imaging technology.

Stuart Pharmaceuticals has FDA approval for marketing HIBITANE® Tincture (Tinted and Non-Tinted) antimicrobial skin preparation for use before skin puncture such as venipuncture. HIBITANE Tincture was introduced in 1979 and has been used since then for preparation of operative sites.

MDA Scientific has a new carbon monoxide detector with adjustable alarm settings. The first alarm may be set between 0 and 55 ppm, the second from 55 to 220 ppm. The CO Monitox is pocket-size and contains several built-in operational checks including battery power and sensor cell/electronics.

Millar Instruments has a new catheter-tip pressure transducer utilizing the MIKRO-TIP® MT-10™. The sensor is high fidelity and features stability and impact resistance several times that of previous sensors. It is designed for use in cardiology, urology and gastroenterology.

Roche Laboratories announce FDA approval for marketing Accutane® (isotretinoin/Roche) a new prescription pharmaceutical that is effective against severe recalcitrant cystic acne. The medication is administered orally twice daily. Women who are pregnant or intend to become pregnant should not receive Accutane. Women of childbearing age should not receive Accutane therapy unless an effective form of contraception is used and continued for one month after the treatment is ended.

Upjohn has received FDA approval for marketing Zanosar Sterile Powder (streptozocin) for treatment of metastatic islet cell carcinoma of the pancreas. Clinical research has demonstrated that Zanosar is the most effective single agent for this rare tumor. It has minimal bone marrow toxicity.

Johnson & Johnson has a new sterile, disposable system for closed wound drainage. The J-VAC™ Closed Wound Drainage System includes the exclusive Blake™ Drain, a high strength, collapse-resistant silicone drain. The reservoir of the J-VAC system is available in 400 ml or 150 ml capacities. J-VAC provides gentle, consistent suction over the entire filling range.

Tandy Leather Company has expanded its sheepskin line into therapeutics. Its new Miracle Rest Comfort Pad of natural sheepskin is available nationwide. The fleece, measuring 10 to 12 square feet, drapes comfortably over wheelchair, bed, recliner or rocking chair. Complete laundering instructions are included to insure long life.

Rystan announces oral Derifil® (chlorophyllin anti-malodor tablets) designed for patients with colostomy, ileostomy, incontinence and abnormal body and breath odor. Clinical research has shown that nursing personnel have benefited equally with patients and their relatives.

Random House has published *The American Medical Association Family Medical Guide.* It is a family reference book which deals with self-diagnosis and self-treatment. It offers advice and guidelines on how to avoid trips to the doctor. Also included are discussions on how to care for the sick in the home, how to cope with terminal illness, how to administer the most effective first aid and how to choose a good personal physician. It contains more than 1,350 photographs, drawings and diagrams (130 of them in color). 832 pages, $29.95.

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

Gaymar announces development of a new pressure sore prevention cushion. The Sof-care™ cushion is constructed with three layers of vinyl air cells. Air will pass from cell to cell and layer to layer. The pressure on skin never exceeds 32mm Hg, the point at which pressure sores can form. The line includes full-bed cushions, table cushions and wheelchair cushions.

Miles Pharmaceuticals announces FDA approval for marketing Azlin® (azlocillin), a semisynthetic penicillin for treatment of serious infections caused by *Pseudomonas aeruginosa.* Azlin has been shown to be effective against many of the resistant strains of Pseudomonas that have appeared under treatment with other antibiotic drugs.

Amko offers two specially designed IUD removal hooks—simple and universal. The simple model may be bent for needed curvature and adapts to most IUD designs. The Universal is especially effective for open types of IUD such as the "Copper 7". A sliding member assures a positive hold on the IUD.

Searle has FDA marketing approval for a 12-hour controlled-release form of Norpace® (disopyramide phosphate). Controlled release of the drug produces consistent blood plasma levels and may reduce potential side effects.

Du Pont is introducing the Du Pont Isolater 10 microbial tube, which accepts a larger volume of blood and increases the system's sensitivity for detecting septicemia. Larger samples have been shown to produce more positive results in low level septicemias.

Actuarial Consulting Company announces *Cost Containment of Health Care Benefits* by Carlton Harker, F.S.A., president of the American Institute of Management Services. The book contains a general discussion of the problem and covers legislative measures, legal considerations, and existing systems for cost management. 190 pages, $30.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy,* Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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CANCER CORNER

The following new publications are available from Bull Publishing Company, P.O. Box 208, Palo Alto, CA. 94302. Bull Publishing specializes in health books for both professionals and the general public.

A Comprehensive Guide for Cancer Patients and Their Families: $12.95 paperback, $19.95 clothbound.

Cancer Rehabilitation: Proceedings from the Western States Conference on Cancer Rehabilitation, March 1982. $29.95 clothbound.

Understanding Cancer: $12.95 paperback, $19.95 clothbound.

The Ostomy Book: Discusses all aspects of Medical and Psycho-Social adjustments. $7.95 paperback only.

If You Find a Lump in Your Breast: A first-hand account by Martha McLean. $2.95 in paperback only.

* * *

The new Professional Education publication *Colonoscopy and Colon Cancer: Current Clinical Practice* supersedes and replaces Dr. Overholt's 1975 *Colonoscopy.*

Over the past decade, colonscopy—its techniques and the instruments available—has been greatly refined. More and more physicians have been trained in this technique, so that today colonoscopy is widely available. When performed properly, colonoscopy is a well tolerated procedure and the risk of complications is quite low. Although it is important in the diagnosis and management of many diseases of the colon, Dr. Overholt states, "Perhaps its greatest use revolves around the colorectal cancer problem."

Until carcinogenic factors that predispose to colon cancer can be identified and eliminated, early detection and elimination of precursor colorectal cancer lesions hold the greatest promise for reducing the incidence of this devastating cancer. Colonoscopy not only improves diagnostic capabilities but provides a relatively safe and economic way to eliminate the precursor lesions.

The following items are available upon request from the Division Office Medical Affairs Department:

1. "A Clinical Trial of Amygdalin (Laetrile) in the Treatment of Human Cancer": Charles G. Moertel, M.D., *et al, New England Journal of Medicine,* 306:4, 201-206, Jan. 28, 1982.

2. "Closing the Books on Laetrile" (Editorial): Arnold S. Relman, M.D., *New England Journal of Medicine,* 306:4, 236, Jan. 28, 1982.

* * *

The 1982 International Association of Laryngectomees Directory is now available for distribution.

* * *

A new audio tape, "Meeting Highlights: American Cancer Society Third National Conference on Cancer Nursing," is now available. This audio tape consists of two 90-minute cassettes packaged in a convenient book-type album with a Table of Contents for locating individual topics and speakers. The tape contains highlights of the two-day conference held in Atlanta, Ga., Oct. 19 and 20, 1981. Topics include: palliative cancer treatment, sexual counseling, issues in pain management, family communication, patterns and delayed effects of cancer treatment.

* * *

"Unproven Methods of Cancer Management Antineoplastons." The statement attached to UPDATE on Antineoplastons, proposed by Stanislaw R. Burzynski, M.D., Ph.D., was approved for distribution by the Society's Board of Directors June 5, 1982. Copies of this statement can be distributed to your medical and lay volunteers, hospitals, medical school, and libraries, medical societies, pharmacies, your representatives in government and other interested persons.

* * *

"Unproven Methods of Cancer Management: Immuno-Augmentative Therapy." On March 24, 1982, the National Cancer Institute provided an update regarding the immuno-augmentative therapy proposed by Lawrence Burton, Ph.D. In view of legislation enacted in Florida and Oklahoma regarding Dr. Burton's approach to cancer management, this letter is being distributed as an aid in answering inquiries that you may receive.

* * *

"Unproven Methods of Cancer Management—Iscador." A statement concerning Iscador, an extract of mistletoe, was approved for distribution by the Society's Board of Directors June 5, 1982. This statement superseded the 1965, 1971 *Ca* reprint, Code #1342-PE. Copies of this statement can be distributed to your medical and lay volunteers, hospitals, libraries, medical societies, pharmacies, your representatives in government, and other interested persons.

* * *

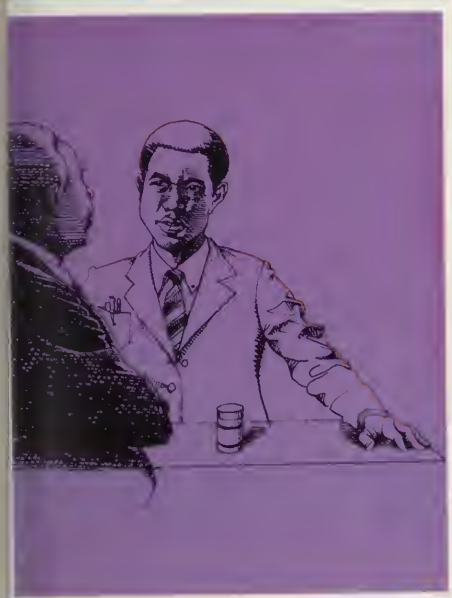
"Unproven Methods of Cancer Management—Dimethyl Sulfoxide (D.M.S.O)." A statement on dimethyl sulfoxide (D.M.S.O.) combined with laetrile and procaine hydrochloride (KH3), administered for the treatment of cancer at the Degenerative Disease Medical Center, Las Vegas, is now available for distribution.

* * *

A flyer entitled "Volunteer for All Seasons" is now available. It stresses the ACS's dependence on doctors as volunteers who formulate policies and programs, evaluate research grants, assess program materials and professional publications, talk to lay audiences, etc. This flyer stresses the ACS's hope that more doctors will contribute their time and knowledge in the fight against cancer.

For copies of these statements and further information on the publications, contact your local Division Office of the American Cancer Society.





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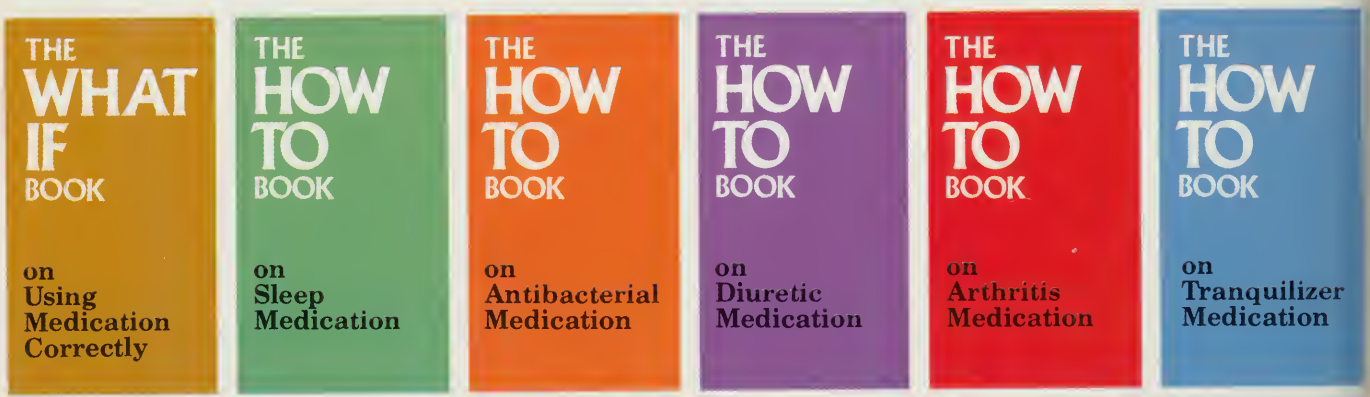
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PUBLIC HEALTH NOTES

How Physicians Can Help Prevent Rising Number of Childhood Accidents

Accidents are the largest single threat to the well-being of children in their first 15 years of life. In 1981, 225 children in Indiana lost their lives due to falls, fires, drownings, motor vehicle and other accidents.

In fact, today's children face risks never experienced by previous generations. Our advanced technology both enriches and endangers young lives. While allowing children to be exposed to new activities, parents also must assume the increasingly difficult task of preventing or minimizing the potential injuries that may occur.

Physicians may assist parents in preventing childhood accidents by providing information on environmental hazards as well as on child growth and development. Such anticipatory guidance will help minimize the seriousness of accidents and/or eliminate conditions which might lead to fatalities. Some of the potential hazards which deserve special scrutiny are:

POISONING—In 1980, 9,973 children under the age of 5 in Indiana were treated for a poison exposure. Physicians can encourage families to be prepared for such emergencies. The Indiana Poison Center number should be posted near the telephone and a bottle of syrup of ipecac should be kept in the home.

FIRE—Children are the most frequent victims of fire. In addition to the pain and suffering they may bear from injuries and/or burns, the child may experience severe emotional scars for the rest of his/her life. To prevent injury in the event of a home fire, physicians can encourage parents to learn about fire safety. Parents need information on the importance of smoke alarms for early detection. Family members should know to drop and roll should their garments catch fire. With their children, parents should develop a fire escape plan and conduct regular drills.

TOYS—Each year, 187,000 children are seriously injured by toys that cut, puncture, burn, shock, or choke them. Physicians need to remind parents that only toys appropriate to the age and development of the child are safe. They should be reminded that toys and sports and recreational equipment become more dangerous as the child grows older. Therefore, careful supervision is essential to the safety of the child at all ages.

AUTOMOBILES—Motor vehicle accidents were responsible for 118 deaths of children in Indiana under the age of 14 in 1980. Ninety per cent of those deaths could have been avoided if the children had been properly restrained. It is imperative that physicians encourage patients to use seat belts and provide information concerning child restraint systems to parents. (Another article on child restraint systems is scheduled to appear in this column in the next issue.)

Several areas and/or activities such as playgrounds, skateboards, fireworks, and firearms could be used to paint an equally clear picture of potential sources of accidents for children. Therefore, parents may need counseling on four major areas. First, they need to know how to *prepare* a safe home environment. This involves activities that would reduce the chance of the child encountering a problem. Fire alarms, turning down the hot water heater or locking up poisons are good examples. Second, parents need to *understand* how to protect the child within his environment. This involves maintaining toys and playground equipment, use of child restraint systems, and keeping poisons out of the reach of children.

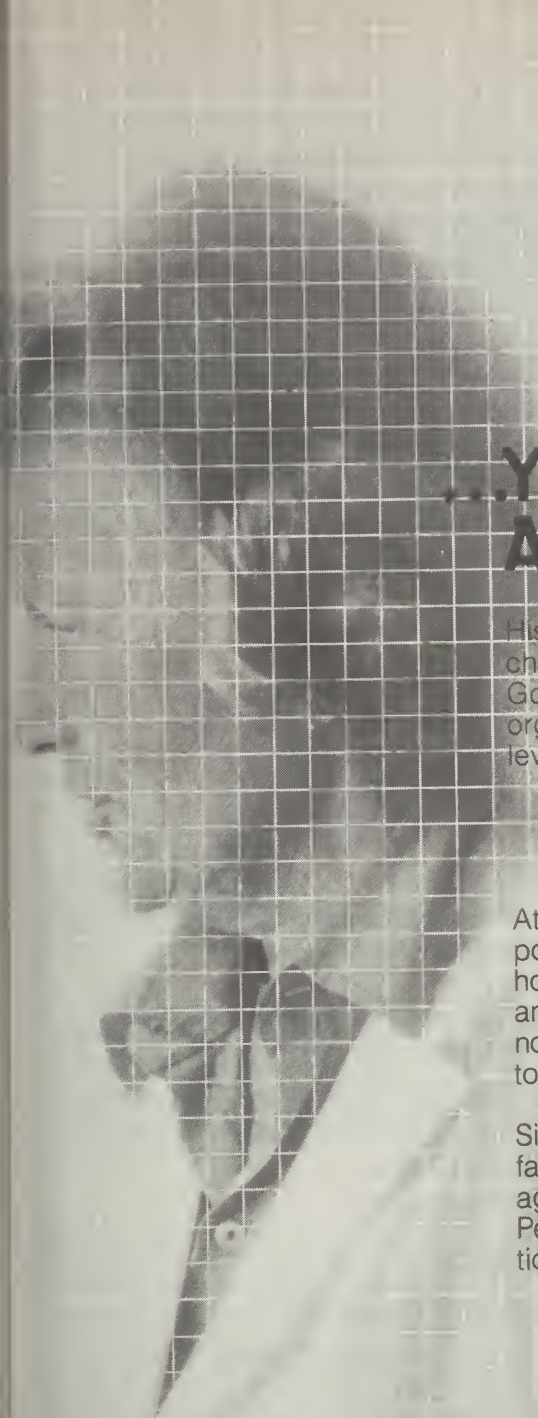
Thirdly, children need to be taught to control their behavior so that they *recognize* hazards and avoid them. This is often the most difficult aspect since children seldom seem to recognize danger until it is too late.

Finally, parents need to be aware of how to *react* in an emergency and have a basic understanding of first aid, CPR, and fire safety techniques. They should also know how to use the "Heimlich Maneuver" in case of a choking incident.

Physicians and parents can't eliminate all accidents from a child's experience. In truth, not all childhood accidents should be avoided. "Experience" is often the best teacher and may provide the background against which safety concepts are built. However, this does not apply in all cases and physicians can play a key role in warning parents of potential dangers in an attempt to minimize or eliminate conditions which might prove fatal.

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The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
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Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
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To obtain Category 1 credit for this month's article, complete the quiz on page 811.



MELANOMA

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C. WILLIAM HANKE, M.D.[2]
NORMAN C. ESTES, M.D.[3]
LAWRENCE H. EINHORN, M.D.[4]

MELANOMA is a frightening word. It is regarded by many physicians and laymen as indicating a highly malignant, usually fatal, black mole. Indeed, this lesion can be very aggressive and can cause death within a few years after diagnosis. Yet, when compared to other lesions associated with a poor prognosis, melanoma patients fare rather well. Recent reports show a five-year survival rate of 70% and, for those patients with clinical stage I disease at diagnosis, the 10-year survival rate is almost as good.

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[4]Professor of Medicine

Although definitive treatment of melanoma has changed little during the past 30 years, the five-year survival rate has more than doubled. This must be attributed to earlier diagnosis and to a rational clinical approach to troublesome pigmented skin lesions. Yet, we still see patients in whom diagnosis has been delayed or whose primary lesions have been removed without microscopic examination. While the extent of the disease and the biologic behavior are the primary determinants of prognosis in patients with melanoma, there is little doubt but that an appropriate diagnostic and therapeutic approach to pigmented lesions suspected of being melanoma can have a favorable influence on the outcome.

Pigmented Nevi

It has been estimated that between 25% and 50% of melanomas arise in pre-existing pigmented nevi. The remainder arise where no previous lesion existed.

Most pigmented nevi are junctional, compound or intradermal. The junctional nevus is a well circumscribed, flat lesion with melanocytes confined to the basal layer of the epidermis. Historically, this is the most common of the nevi to develop into melanoma, although the percentage of junctional nevi that do so is infinitesimal.

Compound nevi are less likely to develop into melanoma, and intradermal nevi rarely do so. The compound nevus is a brown-black papule, with melanocytes present at the epidermal dermal junction and also in the dermis. The intradermal nevus is a papular or pedunculated lesion, with nevus cells confined to the dermis.

Clinical Features

Variability of color, a heterogenous pigment pattern and irregularity of the borders are features that should make the physician suspicious that a pigmented skin lesion may be melanoma. Recent changes in size or pigmentation are cause for concern. Itching and bleeding are uncommon features of benign pigmented lesions and should be viewed with suspicion.

The irregular border of some melanomas is due to lateral spread and uneven regression of melanoma cells. Heterogenous pigmentation in melanoma may include not only the usual

black, brown and tan but variants of red, blue, gray and white. The latter colors are rarely present in a benign nevus.

Clinical Types

The four clinical varieties of melanoma are superficial spreading (SSM), nodular (NMM), acral lentiginous (ALM) and lentigo maligna melanoma (LMM).

Superficial spreading melanoma accounts for 70% of all melanomas. The borders usually are raised and often irregular. Heterogenous pigmentation is the rule. Nodular melanoma is the second most common type and invades the dermis very early in its development. Typically, the lesion presents as a blue-black or blue-brown nodule. Acral lentiginous melanoma occurs on the palms, the soles, the nailbeds and mucous membranes.

Lentigo maligna melanoma should not be confused with lentigo maligna, a benign lesion, although the former may arise in the latter. LMM is most common in elderly individuals and usually occurs in sun-exposed skin, often the face.

Classification

The predictability of melanoma behavior has been analyzed retrospectively and prospectively to include every conceivable variable. These have included sex, age, clinical appearance, malignant transformation of a pre-existent mole versus lesions arising de-novo and the time interval between the patient's concern about the lesion and definitive treatment. Yet, only three variables seem to have a significant influence on prognosis: the stage of the disease, the microscopic depth of invasion and the body region involved.[1]

There are three clinical stages of melanoma *(Table 1)*. In stage I, disease is clinically confined to the primary lesion, although some investigators include patients with satellite skin lesions within 4 cm of the primary. The patient with stage II disease has in-transit skin or subcutaneous skin metastases and/or palpable lymph nodes in the primary lymphatic drainage cluster. Stage III indicates systemic metastases. Microscopic staging may describe the patient with clinically negative, microscopically positive lymph nodes. The presence of positive lymph nodes in a single primary drainage region does not necessarily imply a poor prognosis, providing fewer than three nodes have tumor involvement and the aggregate involved nodal mass is less than 3 cm in its greatest diameter.

TABLE 1
Clinical Stages of Malignant Melanoma

STAGE I—LOCALIZED MELANOMA WITH NO METASTASIS
- a) Primary melanoma either untreated or removed by excisional biopsy
- b) Intradermal spread within 4 centimeters of primary site

STAGE II—MELANOMA WITH METASTASIS LIMITED TO REGION
- a) Primary melanoma present or removed with lymph node metastasis
- b) Locally recurrent melanoma
- c) In-transit metastasis more than 4 centimeters from primary site
- d) Unknown primary melanoma with metastasis

STAGE III—DISSEMINATED MELANOMA
- a) Visceral and/or multiple lymphatic metastases
- b) Multiple cutaneous and/or subcutaneous metastases

Prognosis

Clark[2] and Breslow[3] have been credited with developing the two histopathologic systems that are used to estimate prognosis. Clark's levels range from I-V and denote the deepest skin layer involved by tumor *(Fig. 1)*. In general, the prognosis for melanoma patients worsens with increasing Clark levels. Patients with level I and level II lesions have an excellent prognosis; those with Clark level V lesions have a poor prognosis. Patients with Clark level III and IV lesions have a prognosis that depends, to a great extent, on the measured depth of invasion (Breslow): the thicker the tumor, the poorer the prognosis.

Patients with tumors less than 0.85 mm in thickness are virtually all cured by adequate primary excision. Most patients with tumors between 0.85 and 1.7 mm have a good prognosis but some of these lesions may metastasize. From 1.7 to 3.9 mm in depth the prognosis is even poorer, but appropriate treatment still yields many long term survivors. When lesions are more than 3.9 mm in thickness, there are relatively few long-term survivors and many of these patients will present with stage II disease.

A recent report shows that certain primary melanoma locations carry a poorer prognosis than others.[1] These dangerous areas include the nailbed, the palm of the hand, the sole of the foot, the posterior arm, the upper back, the posterior neck and the posterior scalp.

Treatment

The treatment of patients with melanoma depends on the size and location of the lesion, the stage of the disease and the depth of microscopic invasion.

Since superficial lesions (Clark levels I and II: less than 0.85 mm) have little propensity to recur or metastasize, these lesions are appropriately treated by simple excision with a 5-10 mm border of normal appearing skin and direct closure or application of a skin graft. Whether the wound should be closed primarily depends on the diameter of the melanoma and the body region. If direct closure results in excessive wound tension, a skin graft should be used. Some subcutaneous fat should be included in the excision.

Most patients with Clark level IV and V lesions are treated by wide and deep excision and application of a skin graft. The breadth and depth of excision with Clark level III lesions depends on the Breslow level.

Patients with palpable regional lymph nodes are treated by excision or re-excision of the primary lesion and regional lymph node dissection. If the primary lesion is very close to its primary lymph node cluster and biopsy has shown the lesion to be of potentially aggressive character, the surgeon may elect to perform lymph node dissection even in the absence of clinically palpable nodes.[4] At the Indiana University Medical Center, patients with extremity melanoma invading the reticular dermis are treated by excision or re-excision of the primary lesion, inguinal or axillary node dissection and isolated limb perfusion with phenylalanine mustard.[5,6] A recent review of this treatment over a 15-year period implies increased tumor-free survival, particularly in patients with clinically negative, microscopically positive lymph nodes.

Immunotherapy and systemic chemotherapy have been shown to be ineffective in the treatment of systemic metastases from melanoma.

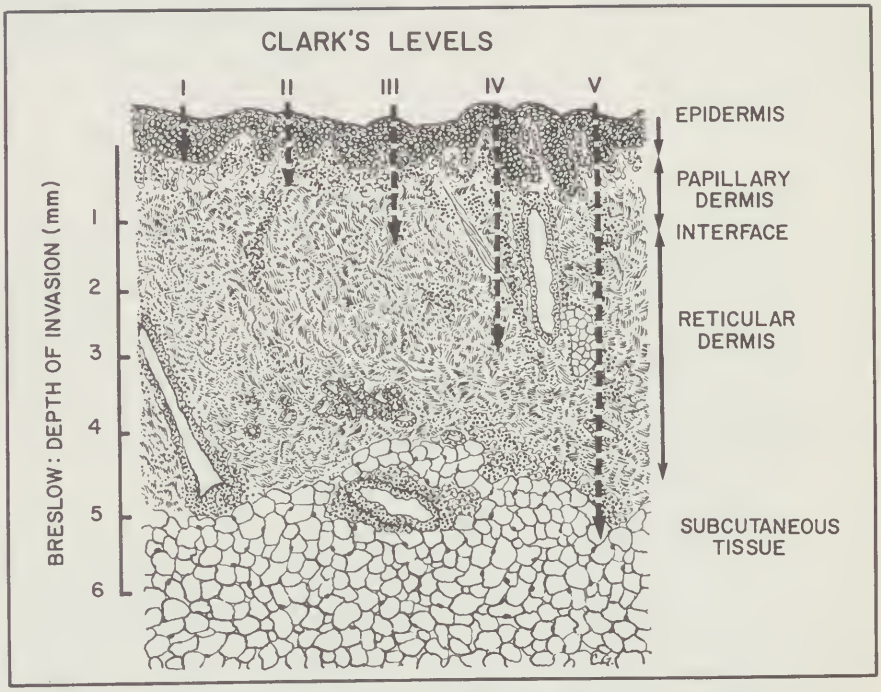


FIGURE 1: A schematic representation of skin histology and the gradations of involvement of melanoma. The correlation of Clark levels with Breslow levels is not constant and varies with the thickness of the skin.

Clinical Approach

When pigmented nevi are removed, they should be completely excised and submitted for histologic examination.

Except for those nevi removed solely for improvement of appearance, moles of concern to the patient and/or the physician fall into three categories:

- The lesion is subject to chronic irritation.
- A change in pigmentation or size has been noted.
- The lesion is an obvious melanoma.

Many physicians have the capacity to excise lesions in the first two categories, but obvious melanomas should not be excised simply to satisfy curiosity. Those patients are best referred unless the physician performing the biopsy is prepared to perform definitive treatment.

While incisional biopsy for diagnosis may be appropriate in very large suspicious lesions, it may not yield the lesion's deepest level of invasion.

Patients in whom the diagnosis of melanoma has already been established and who are being considered for definitive treatment do not require extensive studies. A thorough physical examination and a routine chest x-ray often suffice. Patients with lesions of the trunk should be screened with whole lung tomograms and liver function studies. Patients with clinical stage II disease should have a metastatic work-up. Further investigation, e.g., brain scans, should be reserved for those patients with suspected metastases.

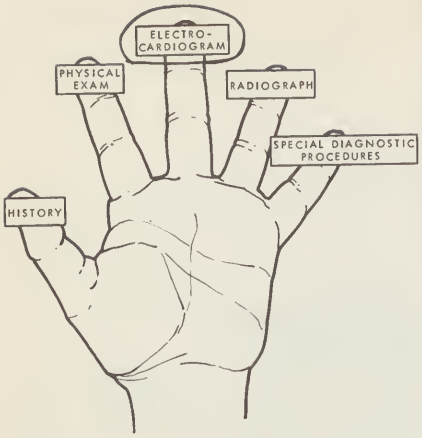
Summary

The prognosis for patients with melanoma can be predicted with reasonable accuracy by the body region affected, the stage of the disease and the microscopic depth of invasion. Recent reports show a five-year survival rate of 70%, and patients with stage I disease who reach this milestone have an excellent chance of being tumor free at 10 years.

A sensible clinical approach to diagnosis and treatment can be based only on knowledge of proven prognostic factors and the development of an appropriate index of suspicion regarding pigmented skin lesions. If melanoma is the likely diagnosis, such a lesion should not be excised simply to satisfy the physician's curiosity. Rather, excision should be considered diagnostic and perhaps the first stage of treatment.

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THE FIVE FINGERS OF CARDIOLOGY

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FOR 10 YEARS a 67-year-old gentleman has experienced paroxysmal tachycardia. Interpret the ECG. Suggest possible therapy designed not necessarily to terminate this episode of tachycardia, but to prevent its recurrence.

ANSWER: The abnormal rhythm is paroxysmal supraventricular tachycardia, at a rate of 170. P waves are not identified, and are presumably "hidden" by the QRS complex. A digitalis preparation and/or beta adrenergic antagonist is generally successful in suppressing recurrent paroxysmal supraventricular tachycardia. However, despite maximally tolerated dosage of each, in this patient the episodes were recurrent, frequently necessitating the patient's presentation to the emergency room.

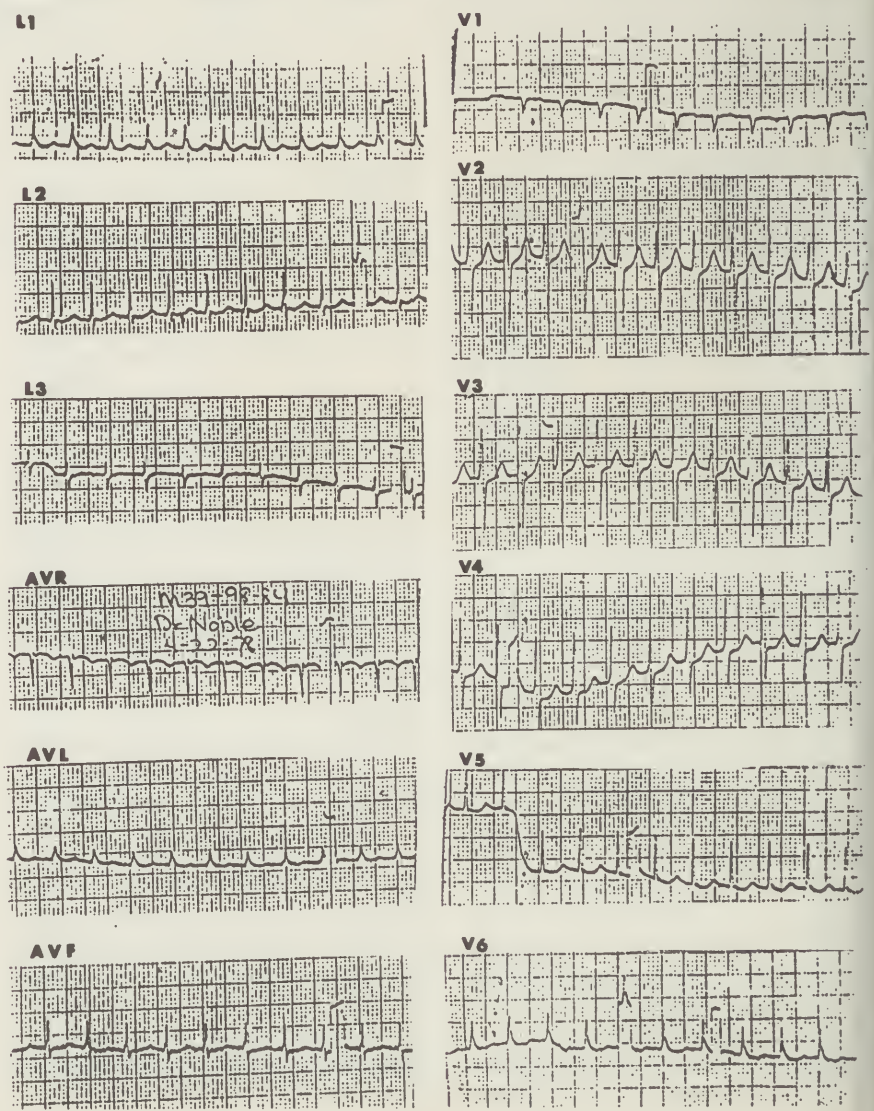
Class I anti-arrhythmic agents, designed to suppress the atrial ectopy which presumably initiates re-entrant supraventricular tachycardia, are the second line of therapy. The patient was intolerant of Quinidine, and continued to suffer recurrent atrial tachycardia despite therapeutic doses and blood levels of procainamide.

From Northside Cardiology, Inc., St. Vincent Professional Building, 8402 Harcourt Road, Indianapolis, Ind. 46260.

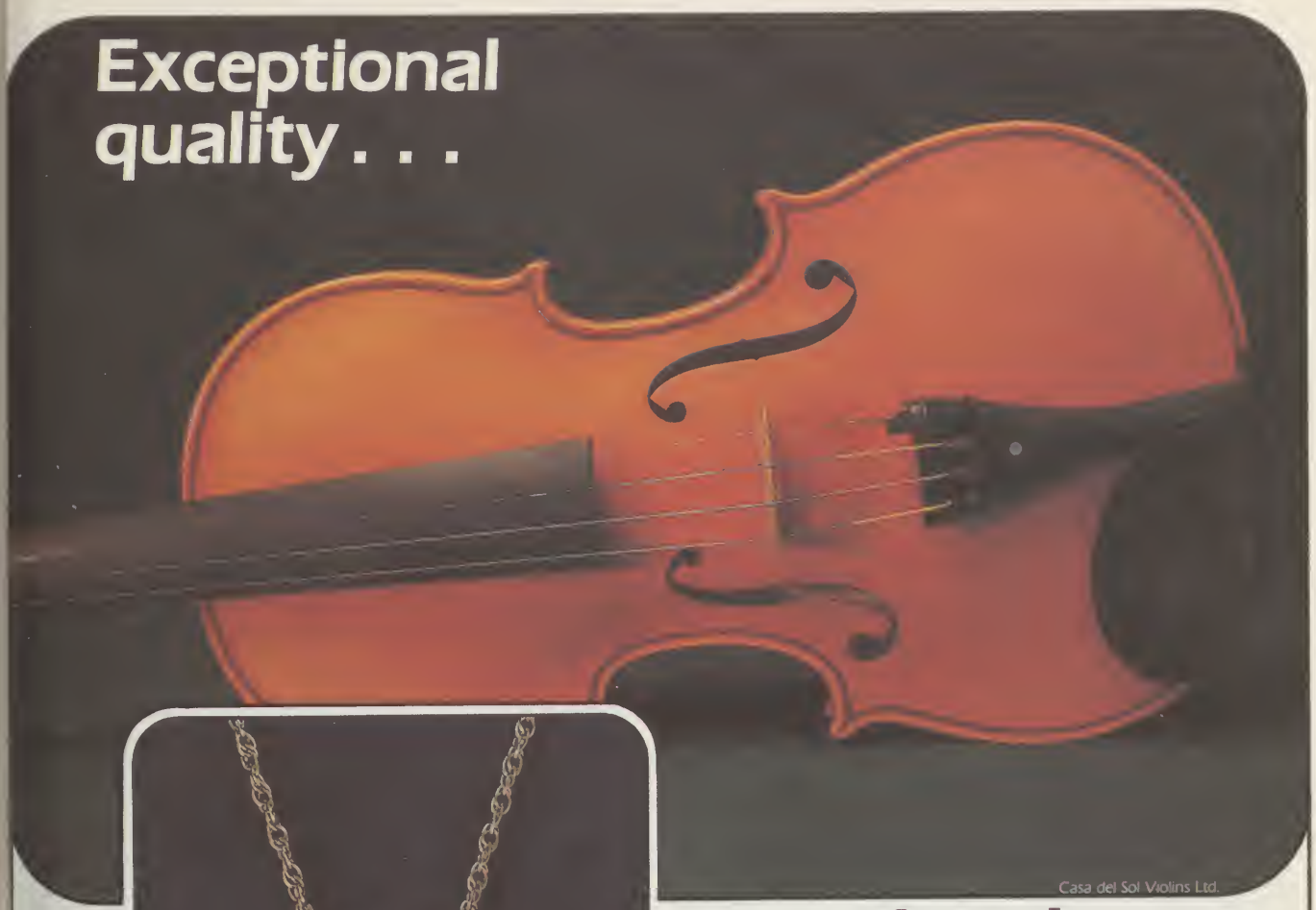
QUESTION: What new therapy is available for paroxysmal supraventricular tachycardia?

ANSWER: In the acute setting, intravenous Verapamil, a calcium antagonist, is successful 90% of the time in converting paroxysmal supraventricular tachycardia to sinus rhythm. However, its success in a chronic setting—using the drug orally to prevent recurrences—is probably not that great. In this patient, it proved to be quite effective, and the patient has not experienced a single recurrence of supraventricular tachycardia in two years.

Over the past several months we have reviewed the use of calcium antagonists in chronic, refractory angina, Prinzmetal's variant angina, and in the termination and prevention of various supraventricular tachyarrhythmias. The agents also are valuable in idiopathic hypertrophic subaortic stenosis; hypertensive emergencies; acute pulmonary edema (as vasodilators); and potentially in cerebral and mesenteric vasospasm.



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Nuclear Cardiology: An Overview

PART 1 OF 3 PARTS

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THE PAST DECADE has seen remarkable advances in the development and validation of new techniques for non-invasive evaluation of the heart and great vessels, including M-mode and two-dimensional echocardiography, Doppler blood flow detectors, and B-mode echoangiography. These techniques have in common the use of high frequency ultrasound to generate their images. Complementary information on myocardial blood flow and cardiac function may be determined by other techniques that image intravenously injected radioactive isotopes, generally termed "nuclear cardiology."

In this paper, we will attempt to describe these latter procedures, assess their indications and efficacy, and conclude with a brief look at new techniques on the horizon, which would appear to have great promise for the future of diagnostic cardiology. At present, there are three tests that are widely used and comprise the bulk of all nuclear cardiology procedures: myocardial perfusion imaging, cardiac blood pool imaging, and myocardial infarction-avid imaging.

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Part 2 will appear in the December 1982 issue of THE JOURNAL.

Myocardial Perfusion Imaging

Prompted by the realization that selective coronary arteriography reveals only anatomy, not actual blood flow through a coronary artery into the heart itself, investigators sought to develop a reproducible, accurate, yet non-invasive method of measuring regional myocardial blood flow. Thallium-201, a potassium analogue, was discovered to have the desired affinity for localization in heart muscle following intravenous injection, and was introduced for clinical use in 1975.

Thallium-201 has significant limitations, including a low energy level, which necessitates a long count time and may result in a poor image resolution. It also has a long half-life, which results in unnecessary radiation exposure to the patient. It is very expensive because it must be cyclotron-produced and transported (usually by air freight) to the site where it will be administered. Nevertheless, it remains the best isotope available for myocardial perfusion imaging and presently enjoys widespread usage.

Thallium-201 is initially deposited in viable myocardium in direct proportion to the coronary blood flow. Later, there is a re-distribution phase as it "washes out" of the regions of highest activity and is slowly taken up from the circulating blood pool by viable regions of myocardium that were initially less well perfused *(see Figure 1)*. There is no uptake of thallium-201 in areas of myocardial infarction. The present indications for thallium-201 myocardial perfusion imaging are outlined in *Table 1*.

Rest Thallium Scanning

The patient suffering an acute transmural myocardial infarction develops an abnormal thallium-201 perfusion image within minutes following the onset of chest pain.[1] Unfortunately, imaging such a perfusion defect may be misleading, as one cannot differentiate old versus new defects without the availability of previous scans for comparison. Furthermore, a critical mass (approximately 5 grams) of myocardium correctly positioned relative to the camera face must be present to be detected.[2] Therefore, many patients with small transmural or subendocardial myocardial infarctions are not detected by thallium-201 perfusion imaging. At present, however, the size of the thallium-201 perfusion defect has been demonstrated to be closely related to the size of the infarct and/or "jeopardized" myocardium.[3]

Rest thallium-201 myocardial perfusion imaging also has been proven useful in differentiating spontaneously occurring chest pain ("variant" angina pectoris) from chest pain of non-cardiac etiology.[4] Demonstration of a perfusion defect that resolves following abatement of the chest pain is very characteristic of angina pectoris. Provocative testing with cold pressor challenge or ergonovine maleate administration can facilitate such studies when proper precautions are taken to assure patient safety.[5] Prognostic information also is derived from such studies, as patients

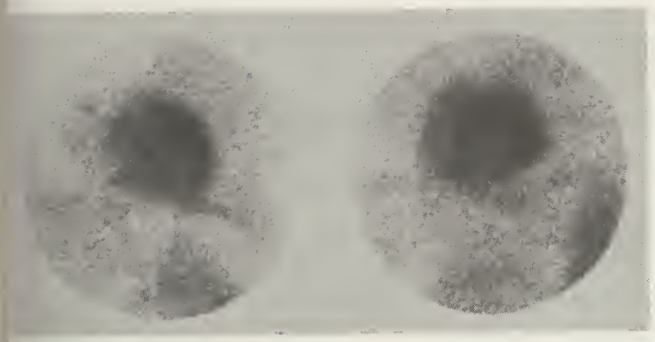


FIGURE 1-A



FIGURE 1-B

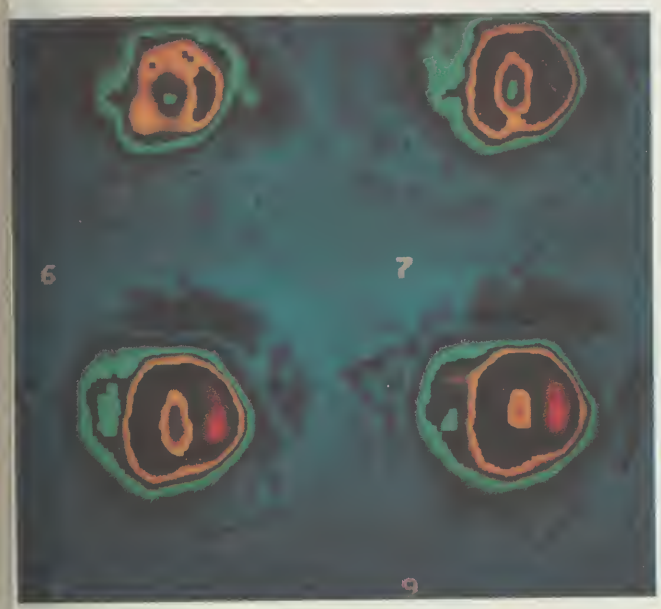


FIGURE 1-C

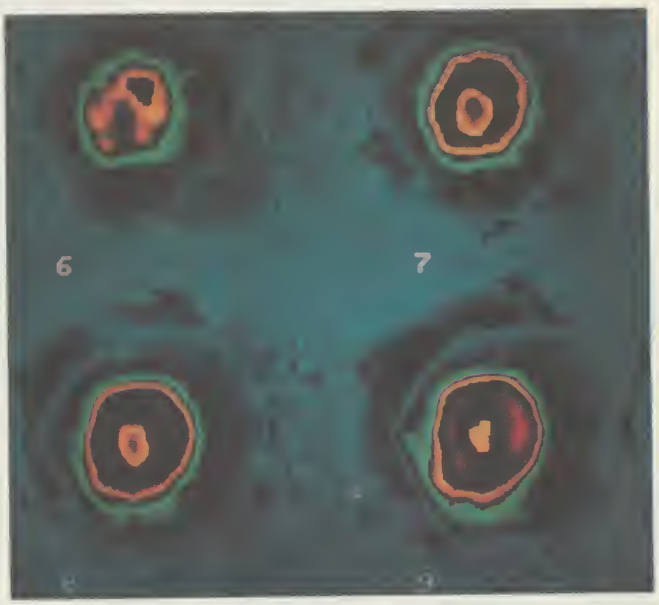


FIGURE 1-D

FIGURE 1: An abnormal rest/exercise thallium-201 myocardial perfusion scan in a patient with previous inferior wall myocardial infarction. PANEL A shows a large perfusion defect in the inferior segment of the left ventricle, following exercise. PANEL B shows no apparent redistribution of thallium-201 on a scan performed three hours after exercise imaging (left=AP view, right=LAO view). PANEL C (post-exercise) and PANEL D (redistribution) display 1 cm in depth circular sections from apex (#6) to base (#9) obtained by 7-pinhole collimator imaging in the LAO projection in the same patient as PANELS A and B. Redistribution of thallium-201 radioactivity into the interventricular septum is now more clearly demonstrated (note new appearance of red color in left portion of circle in PANEL D, section 9). This patient subsequently was found to have a total occlusion of the dominant right coronary artery and 75% proximal stenosis of the left anterior descending coronary artery at catheterization.

with unstable angina with large perfusion defects occurring spontaneously during angina episodes are at high risk compared to those with minimal defects.[6]

Thallium-201 Stress Testing

Clinical usefulness of thallium-201 perfusion imaging markedly increased when it became apparent that regional heterogeneity of coronary blood flow often did not exist at rest in a patient with coronary disease, yet could be provoked easily and safely by exercise stress. This phenomenon occurs because a coronary artery must be critically stenosed before it decreases blood flow at rest, yet a lesser degree of stenosis will interfere with the increased blood flow patterns demanded by exercising myocardium.

Thallium-201 exercise stress testing has been proven by many investigators to increase the diagnostic sensitivity and specificity of coronary artery disease when compared to routine electrocardiographic graded stress testing.[7]

TABLE 1: Indications for thallium-201 imaging

a) Rest Studies
   1) ? chest pain due to myocardial ischemia/infarction (particularly in absence of ECG changes or uninterpretable ECG changes).
   2) Is area of akinesis due to ischemia or infarction?

b) Exercise Studies
   1) Diagnostic testing in presence of ECG abnormality that makes interpretation of stress ECG difficult (e.g., LBBB, LVH, digitalis).
   2) Clarify suspected false-negative stress ECG test.
   3) Clarify suspected false-positive stress ECG test.
   4) Assess size of "jeopardized" myocardium.
   5) Assess hemodynamic significance of an angiographically documented coronary artery stenosis.

c) Intervention Studies
   1) Provocative testing for coronary artery spasm.
   2) Intravenous dipyridamole (Persantine®)—used to increase coronary flow in patients who cannot exercise.

For example, Botvinick and his associates correlated results of the ECG graded exercise stress test and thallium-201 exercise stress test images in 65 patients undergoing coronary arteriography for chest pain symptoms.[8] They found thallium-201 imaging to be more sensitive (85% versus 67%), more specific (89% versus 63%), and more accurate (87% versus 65%) than stress electrocardiography in patients with isoelectric ST segments at rest. In addition, the stress thallium-201 perfusion images yielded diagnostic information in the presence of left bundle branch block, left ventricular hypertrophy, drugs (particularly digitalis preparations), hyperventilation induced ST segment changes, and was much more accurate than the stress electrocardiogram (89% versus 53%) in the presence of a depressed ST segment at rest.

Evaluation of thallium-201 images following stress also has been proven to yield additional diagnostic and prognostic information in the setting of previous coronary artery bypass surgery,[9] previous coronary artery angioplasty,[10] and previous recent myocardial infarction[11] when compared to the routine electrocardiographic stress test.

Thallium-201 stress testing also may prove useful as an indicator of the hemodynamic significance of individual coronary artery stenoses, yet the data on this appear unconvincing at present.[12] Nevertheless, thallium-201 perfusion imaging after stress undoubtedly is more sensitive in identifying a patient with single vessel coronary artery disease than electrocardiographic stress testing.[13]

Summary

Thallium-201 exercise stress testing is particularly useful in assessing suspected false-positive or false-negative exercise electrocardiographic graded treadmill stress tests. It has not been found of use in population screening due to its extreme expense and limited supply.[14] It may offer important prognostic information in displaying the size and location of "jeopardized" myocardium, in addition to its enhanced diagnostic accuracy when compared to electrocardiographic methods.

Despite these many positive features of thallium-201 perfusion imaging, the test does have significant limitations. Most importantly, it must be recognized that external counting of thallium-201 is a relative measure which often underestimates the extent of coronary disease.

False-positive results occur occasionally, particularly in the setting of aortic stenosis, hypertrophic cardiomyopathy, mitral valve prolapse syndrome, female sex, and infiltrative cardiac diseases, e.g., sarcoidosis. Therefore, thallium-201 imaging should not be considered a substitute for cardiac catheterization. It remains a complementary diagnostic test that can be extremely useful in selected patients when utilized appropriately and viewed in context with other available clinical data.

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Office Evaluation of the Pulmonary Patient

PART 1 OF 2 PARTS

RUSSELL J. DUKES, M.D.
Bloomington

THERE ARE LITERALLY hundreds of thousands of people in the United States with pulmonary disease. More than $2 billion will be spent this year in the U.S. alone on respiratory illnesses. To effectively diagnose and treat these patients, we need a firm understanding of the basic physiology of the respiratory system and a good grasp on how to sort out the abnormalities when they occur.

Unfortunately, all too often, test after test is ordered, not in conjunction with, but in substitution of, a complete history and physical exam. If the history and physical exam are properly performed, then a very few, simple laboratory tests usually can fill in the missing data. Rarely will we need to resort to more sophisticated and expensive tests but when we do, they will be for a specific purpose and not just as a "shotgun" approach.

Since the first encounter with the patient usually is in the office setting, I would like to review what I feel are the fundamentals of history taking, physical exam and basic laboratory tests that can be obtained with relative ease in any office setting, whether it be that of the primary care physician or the subspecialist.

The History

A person's age and sex must be considered when evaluating the pulmonary patient. Younger patients tend to have diseases such as congenital abnormalities, cystic fibrosis or bronchial asthma. In older patients, we look harder for diseases such as emphysema, chronic bronchitis, and even lung cancer. Women used to have a very low incidence of lung cancer; unfortunately, this is no longer the case due to increased use of cigarette smoking.

A thorough smoking history is mandatory. Obstructive airway disease and lung cancer both increase in a linear fashion with the total pack-years of cigarette smoking. Be sure to inquire if anyone else in the household smokes, i.e., parent or spouse. Much new evidence suggests a direct cause-and-effect relationship in patients with lung disease and "sidestream" smoke.

The temporal relationship of a patient's symptoms can be helpful. Allergic disorders often will be seasonal. They may vary during the day or they may even vary during times of the week. Are your patient's symptoms more prominent in the morning, as patients with chronic bronchitis, or are they more prominent upon lying down in the evening, as seen with many asthmatics? Ask specifically about other family members with the same or similar problems. Often this will uncover allergic tendencies in the patient or the family.

Occupational lung diseases are in their infancy. They are becoming more and more recognized as specific causes of respiratory illnesses and becoming more defined. Monday morning asthma found in textile workers is a classic example. Coal mining, asbestos exposure, pipe-fitting, and arc welding are just a few other examples of jobs with significant pulmonary complications. Spare time work and hobbies are an integral part of the pulmonary evaluation. I once had a patient who said he had no hobbies until his wife piped up with, "What do you call 500 pigeons in a coop, ne

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Part 2 will appear in the December 1982 issue of THE JOURNAL.



Pulmonary Disorders Associated with Clubbing

Primary lung cancer
Metastatic lung cancer
Bronchiectasis
Cystic fibrosis
Lung abscess
Pulmonary arteriovenous malformations
Empyema
Mesothelioma
Neurogenic diaphragmatic tumors
Interstitial lung disease

to the house!" The patient had had pigeon breeder's disease.

The Physical Exam

General Appearance. Note the patient's general appearance. Is it robust and healthy, or shallow and malnourished? Altered sensorium can be seen with cerebral metastasis from lung cancer. Patients with metastatic carcinoma often will sit in unusual positions, generally to relieve bone pain. COPD patients typically will sit with both arms on the chair seat, leaning forward in a "tripod" position. Obvious weight loss with a belt buckle drawn up may make one suspicious of cancer. I have seen patients with flushed face, neck-vein distention and obvious superior vena cava syndrome appear in the office complaining of something entirely different. Gestalt appearance will many times help you to separate the well from the unwell.

Extremities: This evaluation can begin with a handshake. Any nicotine stains on the fingers? Is clubbing present? Clubbing in an older person makes one consider pulmonary fibrosis, bronchiectasis or carcinoma. In a young asthmatic patient that is clubbed, cystic fibrosis immediately is entertained. Erythema nodosum is found in sarcoid, histoplasmosis and tuberculosis. Antecubital scarring is common in drug addiction and has many pulmonary manifestations, ranging from "talc lung" to multiple staphylococcal pulmonary abscesses. Long bone tenderness commonly will be mistaken for an orthopedic problem instead of lung cancer with secondary hypertrophic pulmonary osteoarthropathy. These patients have very tender distal forearms and legs secondary to subperiosteal elevation. This occurs as paraneoplastic manifestation of neoplasms, most often lung cancer.

HEENT: Scleral icterus bespeaks liver metastasis or a drug reaction. Pyorrheal teeth predisposes to anaerobic lung infections. A lacerated tongue makes one consider a seizure disorder and concomitant aspiration pneumonia.

I always tell my students that the chest exam actually begins in the neck! The readily accessible anterior and posterior cervical lymph nodes not only will diagnose a lung cancer, but stage it as well. Occasionally, a lymphoma will present in this manner.

There are several tracheal signs that often are overlooked: 1) Tracheal fixation—inflammation or neoplasm of the mediastinum; 2) Tracheal pulsation—aneurysm of the ascending aorta; 3) Tracheal displacement—bronchial obstruction or pneumothorax; and 4) Tracheal fluctuation—achalasia.

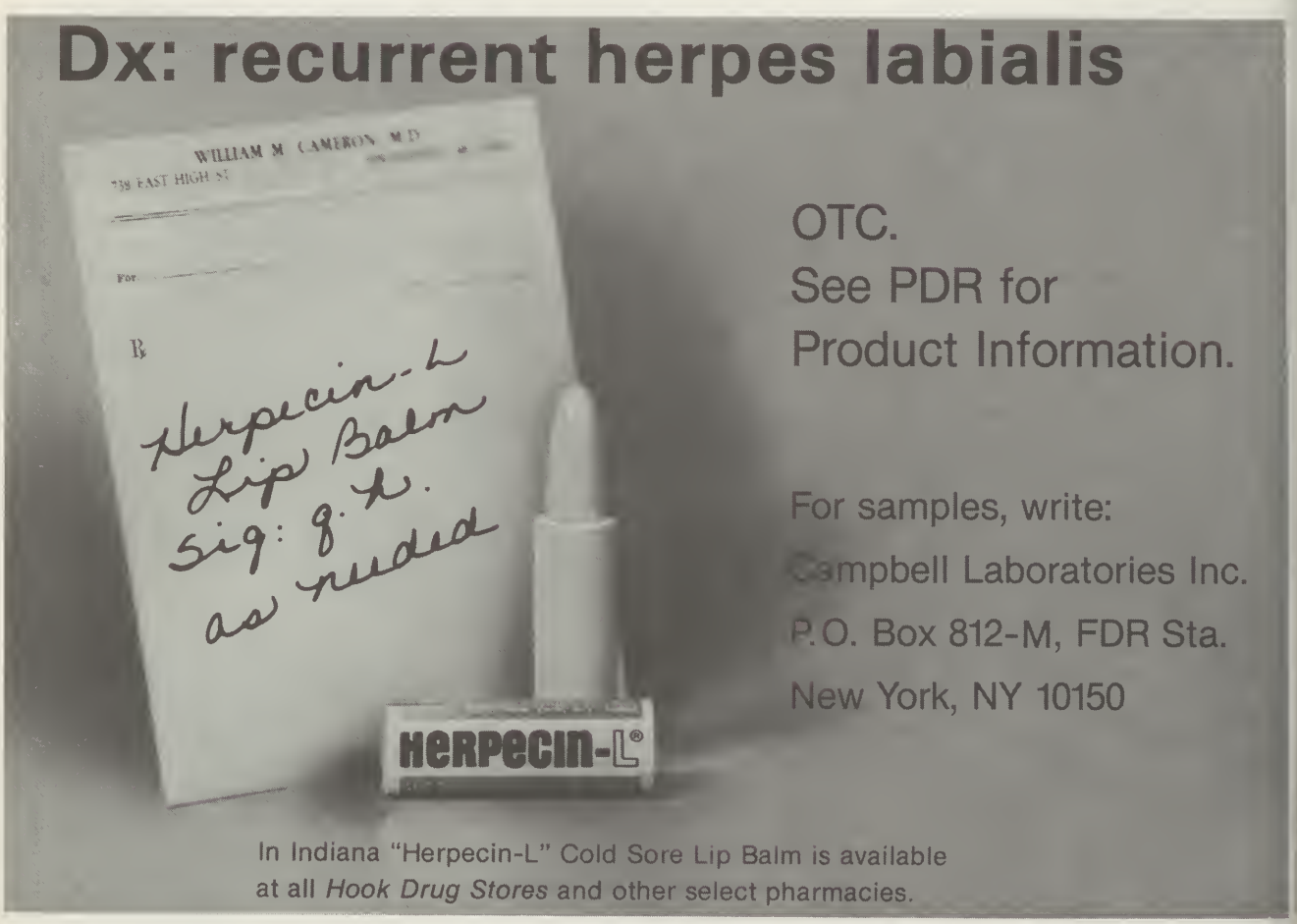
While observing the neck, don't forget to pay attention to the venous pulsations. A persistently elevated jugular venous pulse or positive hepato-jugular reflux signals cardiac disease, more specifically congestive heart failure. A large "A" wave is seen in pulmonary hypertension; a large "V" wave is seen in tricuspid regurgitation. Tricuspid regurgitation frequently may occur with lung surgery, especially in pneumonectomy with concomitant pulmonary hypertension and tricuspid valve dysfunction. "A" waves will disappear with atrial fibrillation, a frequent occurrence in longstanding obstructive lung disease.

Chest Exam: A. Inspection. The respiratory rate should be between 12 and 15 breaths per minute. Tachypnea in an afebrile patient leads one to consider interstitial lung disease, congestive heart failure or recurrent pulmonary emboli. Bradypnea is seen more commonly with obstructive airway disease and drug ingestion. Cheyne-Stokes respiration is seen in severe cardiac disease or un-

derlying central nervous system defect. Kussmaul breathing occurs in many acidotic states, diabetic ketoacidosis the most common example. Any scoliosis or hyposcoliosis should be noted in that it may lead to restrictive pulmonary defect. Asymmetry of the chest wall motion is found in pneumothorax, pleural effusion, or paralysis of the hemidiaphragm.

B. Palpation and Percussion: After carefully palpating the supraclavicular and subaxillary nodes, I generally have the patient say "99" while gently resting my hands on the posterior thorax. Tactile fremitus can be decreased with any effusion, obstructed bronchus or pneumothorax. Consolidated lung with a patent bronchus gives an increase in tactile fremitus. Percussion can uncover a pleural effusion—look for shifting dullness. Also, the level and mobility of the diaphragms can be percussed quite readily. An excursion of 4-6 cm is the usual range. If percussion of the diaphragm discloses low flat diaphragms and a movement of less than 2 cm, this, taken along with the other physical findings of obstructive lung disease, suggests a severe obstructive impairment. Occasionally, one can see a red, warm, erythematous bulge in the lower rib margins. In the correct clinical setting, this is highly suggestive of a subphrenic abscess or empyema.

C. Auscultation: Be sure to auscultate all the segments of the lung, including the supraclavicular fossa. Diminished breath sounds are present in emphysema, pleural effusion, obesity, obstructed bronchus or paralyzed diaphragm. Loud or bronchial breath sounds are present along with increased tactile fremitus in consolidated lung with an open bronchus. Adventitial sounds include rubs, rales and rhonchi. Rubs are present with any pleural disease. Rales or crackles can be early, mid or late in the respiratory cycle, and may be fine, medium or coarse. Early fine rales usually are seen in congestive heart failure. Mid-intensity rales on mid inspiration are more common in pneumonias; and coarse, late rales are found in pulmonary edema. Loud, coarse rales that sound like a Velcro pressure cuff being pulled apart are quite common and some people feel pathognomonic of idiopathic interstitial pneumonitis-fibrosis (Hammond-Rich). Conditions such as sarcoid usually have a "silent chest" even with diffuse disease. Rhonchi of the sonorous type are found in the large airway secretions. Sibilant rhonchi (wheeze) are noted in bronchospastic airway disease (asthma).



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Otologic Disorders in Children.

PART 1 OF 3 PARTS

GEORGE W. HICKS, M.D.
J. WILLIAM WRIGHT, JR., M.D.
J. WILLIAM WRIGHT, III, M.D.
Indianapolis

THE DETECTION, analysis and treatment of hearing loss in the pediatric age population is of critical importance. The newborn infant with an undiscovered hearing loss risks inhibition of normal language acquisition and the imposition of stunted social and intellectual development. A hearing loss acquired at a later age leads to academic failure, social isolation, and, at times, being classified as a "slow learner" or worse yet, as "retarded."

From Otologic Associates, Inc., 5506 E. 16th St., Indianapolis, Ind. 46218, and the Wright Institute of Otology, Inc., Indianapolis, Ind.

Part 2, dealing with acute infectious processes of the ear, will appear in the December 1982 issue of THE JOURNAL.

Background

Hearing Loss: Most childhood ear disease has hearing loss as its first symptom. There are three basic types: conductive, sensorineural, and mixed. One can understand these types of hearing loss by reviewing the anatomy and physiology of the ear *(Figure 1).*

The ear is divided into three parts, the outer, middle and inner ear. The *outer ear* is the auricle and ear canal; the *middle ear* is the eardrum, hearing bones (malleus, incus, stapes), mastoid cavity and eustachian tube; the *inner ear* contains the cochlea with its oval and round windows, semicircular canals and the internal auditory canal within which is the vestibular, cochlear and facial nerves. Sound waves enter the ear canal, strike the eardrum, and are transmitted along the ossicular chain. The stapes bone in the oval window transmits the sound vibration to the inner ear fluids which in turn activate the nerve endings of the cochlear nerve in the organ of Corti. Nerve impulses are then sent to the cerebral cortex via the auditory nuclei in the brain stem.

The location of a given ear lesion determines the type of hearing loss produced *(Figure 2).*

Conductive Hearing Loss—This type of loss occurs with interference of the conductive mechanism of the external or middle ear. Examples would include excessive cerumen in the ear canal, absence or defects of the eardrum, ossicular damage or fixation, fluid or masses in the cavity of the middle ear.

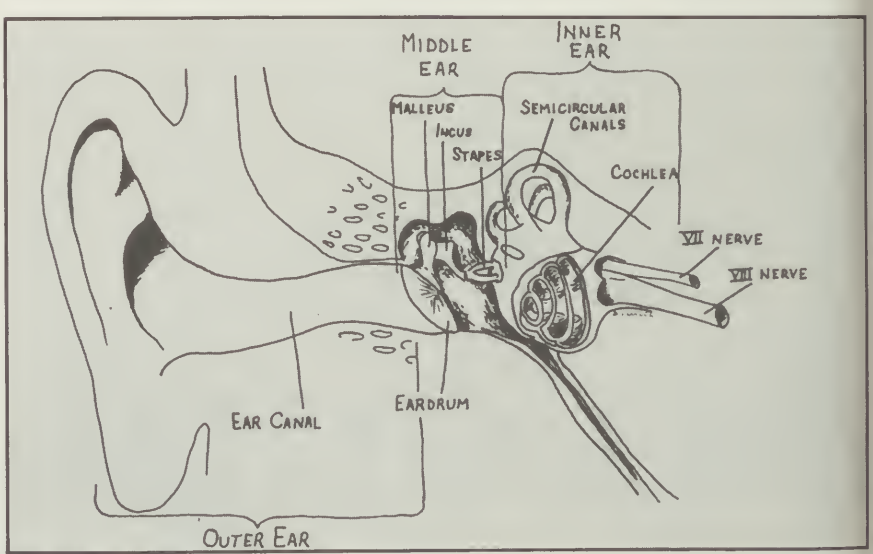


FIGURE 1—Anatomy of the ear.

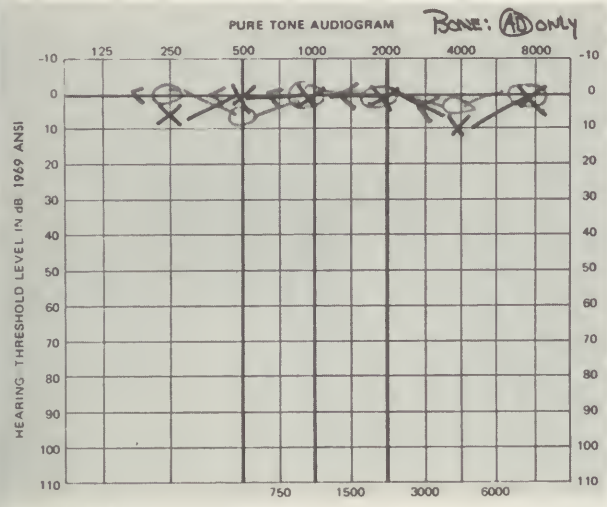


FIGURE 2-A

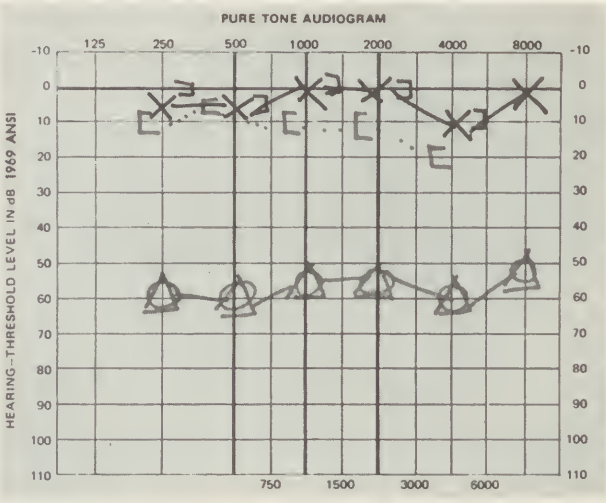


FIGURE 2-B

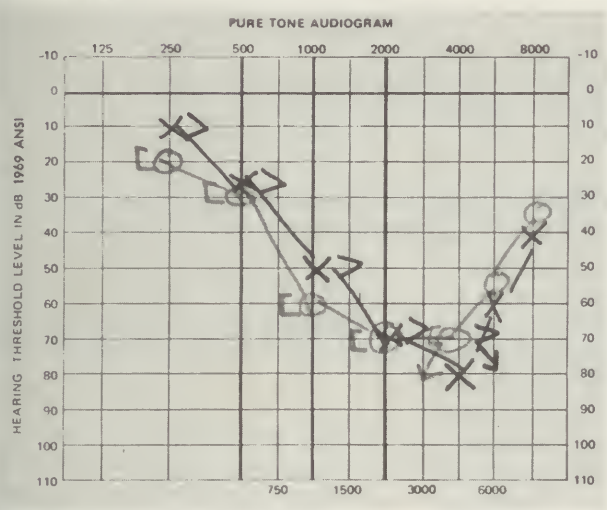


FIGURE 2-C

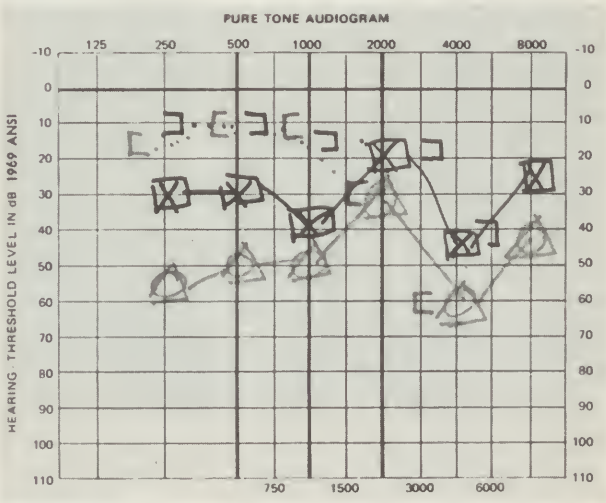


FIGURE 2-D

FIGURE 2—Basic audiometric patterns: A=normal audiogram. B=conductive loss, right ear. C=sensorineural (nerve) loss, bilateral. D=mixed loss, bilateral. Pure tone audiogram reads from low to high frequencies (left to right), from low to loud volume (top to bottom). Code: [=right nerve,]=left nerve, 0=right air conduction, X=left air conduction.

Sensorineural Hearing Loss—This loss is also known as nerve loss or perceptive deafness. The abnormality lies in the inner ear or central hearing nerve pathways. Examples of this type of hearing loss are congenital, drug toxicity, bacterial or viral infections.

Mixed Hearing Loss—This type of loss is a combination of conductive and sensorineural losses. A middle ear infection with secondary inner ear toxicity is an example of this type of loss.

Detection of Hearing Loss:

Hearing Test—Presently, a hearing loss can be discovered from birth on. Certain factors, when present, are commonly associated with hearing loss in the newborn. Among these are a family history of hearing loss, jaundice at birth, Rubella during pregnancy, and prematurity with a birth weight less than 1,500 grams.

If suspected, infant hearing problems can now be identified using various diagnostic techniques. A behavioral test such as the Infant Screening Unit of Simmons (Cribrogram) is a helpful adjunct to the detection of hearing loss.

Auditory Brain Stem Responses (ABR) can safely and accurately estimate the competence of the peripheral auditory apparatus in infants as well as autistic, hyperactive, mentally retarded, multiply



FIGURE 3



FIGURE 4



FIGURE 5

FIGURE 3—The Weber Test. A struck 256 Hz tuning fork is placed in the middle of the forehead.

FIGURE 4—Rinne Test. A struck 256 Hz tuning fork is placed on the mastoid process.

FIGURE 5—Rinne Test. After being placed on the mastoid process, the tuning fork is held approximately 2-3 inches alongside the ear.

handicapped children or in infants with malformations of the external ear and ear canal.

Impedance audiometry is quite helpful in testing children of all ages in the identification and classification of middle ear disorders, cochlear and eighth nerve disorders, as a cross check on hearing sensitivity in infants and young children, and as an aid in the localization of brain stem auditory pathway disorders.

Air and bone conduction audiometry is routinely used in older children (as in adults) to calibrate the amount of hearing loss at any given frequency and record this in decibels. A loss can be accurately measured and plotted at any given tested frequency to determine if the loss is conductive, sensorineural or mixed.

Two valuable sources of information are as important as any of the above tests and the physician's most practical clinical tools. A child unresponsive to a *mother's voice* and who does not begin to say a few words when a year old should be suspected of hearing impairment. Secondly, *tuning forks* give very essential and reliable information in the older, cooperative child and indeed discrepancies between tuning forks and audiometric tests invariably indicate an error in the audiometry!

Two basic tuning forks tests done with a 256 CPS aluminum alloy fork are the Weber and Rinne.

A *Weber test* consists of placing the vibrating fork on the forehead *(Figure 3).* The vibrating sound is heard best in the ear with a conductive loss (the poorer hearing ear). If the loss is sensorineural, the vibrating sound is heard away from the ear with the nerve loss, in the better hearing ear.

The *Rinne test* confirms whether the involved ear has a conductive or sensorineural loss. The struck tuning fork is placed against the mastoid process *(Figure 4).* The patient is asked if the tone is heard.When a positive reply is given, the tuning fork is quickly placed in front of the auricle and the patient is questioned whether the tone is louder behind the ear or in front of the ear *(Figure 5).*

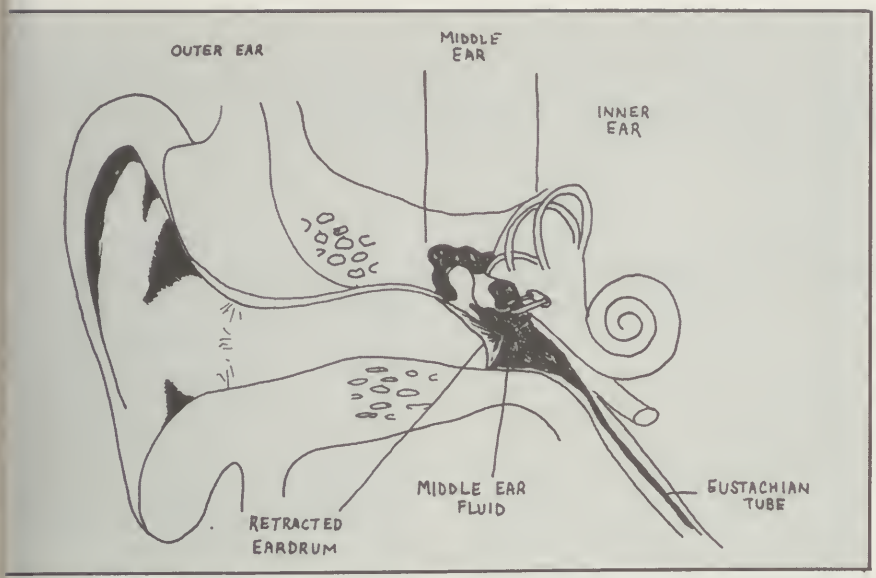


FIGURE 6—Middle ear effusion ("fluid in ear").

A tone heard loudest behind the ear (bone conduction) indicates a conductive loss, while a tone heard best in front of the ear indicates a sensorineural loss. Without lateralization of the Weber test, hearing better by air conduction does not necessarily mean a nerve loss is present. Normal ears also hear better by air conduction.

Conductive Deafness

A conductive hearing loss occurs when sound cannot get into the inner ear because of an obstruction or defect of the conducting mechanism of the outer or middle ears.

Serous Otitis Media—One of the most common causes of conductive hearing loss in children is serous otitis media ("fluid in the ears").

Etiology: Malfunction of the eustachian tube is the usual cause for serous fluid accumulation in the middle ear. Adenoid obstruction with chronic infection, allergy, and cleft palate anomalies are all possible etiologies. Blockage of the eustachian tube prevents ventilation of the middle ear. The air in the middle ear is absorbed by the lining mucosa and negative pressure develops with eardrum retraction and excretion of a transudate by the secreting mucosa of the middle ear. This middle ear fluid then blocks or muffles the sound passing through the middle ear.

Diagnosis: The eardrum in serous otitis media is always intact, but often retracted inwards *(Figure 6)*. The malleus handle appears to be more prominent, whitish and shortened. One may see a yellow-appearing fluid or, in long standing cases, a bluish-fluid. In a resolving serous otitis, bubbles of air can be present in the fluid. The light reflex is the *most unreliable* guide in evaluating this problem.

The most accurate methods of diagnosing serous fluid is by use of a pneumatic otoscope or microscope. Immobility of the eardrum with the introduction of positive and negative pressure is quite diagnostic. Tuning fork tests would demonstrate bone conduction greater than air conduction. Audiometric evaluation, especially impedance audiometry, may help confirm the diagnosis.

Treatment: The goal of therapy in serous otitis media is to establish ventilation of the middle ear space. If the ear is adequately ventilated, neither negative pressure nor fluid has a chance to form. The most natural way to accomplish this goal is to cause the patient's own eustachian tube to work properly. Various medical treatments such as antihistamines, decongestants, and occasionally antibiotics are useful. Nasal allergy must be diagnosed and treated with desensitization, and/or antihistamines. Enlarged and chronically infected adenoids should be removed surgically. Seldom do the tonsils contribute to serous otitis media, and in the absence of a positive history for tonsillitis, tonsillectomy is not necessary.

Should medical treatment not be effective in establishing ventilation of the middle ear space, myringotomies with ventilation tube placement should be done. Often a myringotomy alone is insufficient. The eardrum rapidly heals within forty-eight hours after a myringotomy. Since this once again seals off the middle ear space from outside ventilation, the negative pressure and fluid can once again accumulate.

A ventilation tube allows air to pass freely through the tympanic membrane and prevents serous fluid from returning, thus equalizing middle ear pressure. The ventilation tube is left in the eardrum for varying periods of time depending upon the clinical course of the ears under treatment. At times the ventilation tube works itself out of the eardrum into the ear canal; at other times the physician will remove the tube when resolution of the middle ear problem appears to have occurred. During the time of the tube(s) any nasal allergy can be controlled and a post adenoidectomy nasopharynx can heal. Hearing returns to normal immediately after the fluid is removed from the middle ear and the ventilation tube is put into the eardrum.

Certainly some cases of serous otitis media are more complicated than others. The important thing is to treat the disease adequately. If the ear is left with negative pressure, the eardrum collapses into the middle ear space. If fluid is allowed to remain, it tends to form adhesions throughout the middle ear. Both of these conditions can lead to significant hearing loss correctable only by major ear surgery.

Acute Oliguric Renal Failure Due to Bilateral Renal Artery Emboli:

Thrombolysis with Intra-Arterial Streptokinase Infusion

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G. FITZGERALD, M.D.
J. W. CRISTEE, M.D.
Terre Haute

BILATERAL TOTAL embolic occlusion of the renal artery often results in loss of renal function. Morbidity and mortality related to loss of renal function and secondary hypertension due to renal artery occlusion appear to be related to delay in diagnosis and institution of appropriate therapy.[3,7]

Though bilateral renal artery emboli are a surgically remediable cause of oliguric renal failure, many patients are not surgical candidates because of severe underlying diseases.[1,4] Use of fibrinolytic agents infrequently are reported in therapy of renal artery emboli, although these agents are increasingly used successfully in thrombotic coronary artery occlusion and pulmonary artery emboli.[2,5,8]

Herein, we report our experience with intra-arterial streptokinase therapy in a patient with bilateral renal artery emboli causing acute oliguric failure and subsequent demonstration of dissolution of emboli by this mode of therapy.

Case Report

A 56-year-old man with known ischemic heart disease, a past history of transmural myocardial infarction 14 years ago, and left iliac artery angioplasty one year ago for peripheral vascular disease, was admitted with chest tightness, lightheadedness, and palpitations for about 48 hours duration.

On admission, the patient had supraventricular tachycardia with ventricular rate 160/min., BP 90/60mm. Lab findings showed normal complete blood count, blood urea nitrogen 38mg/dl, (normal 9-24mg/dl) serum Creatinine 0.8mg/dl, (normal 0.5-1.2mg/dl) normal serum electrolyte, normal serum lactic dehydrogenase (LDH), serum glutamic oxalacetic transaminase (SGOT), serum glutamic pyrurate transaminase (SGPT), and creatine kinase (CPK) isoenzyme.

Twenty-four hours later the patient developed atrial flutter-fibrillation with ventricular rate 140-150/min. Forty-eight hours after admission, he developed cardiopulmonary arrest from which he was successfully resuscitated and maintained by a temporary cardiac pacemaker. At that time, he complained of left flank dull pain, which lasted for a few hours.

The patient's blood pressure was maintained at 100/60mm Hg, with ventricular paced rhythm rate 70/min. Because of persistent bradycardia and tachycardia-bradycardia syndrome, the patient underwent permanent demand cardiac pacemaker insertion. On the 9th hospital day, he again complained of leftsided loin pain, and urinalysis at that time showed microscopic hematuria with protein 2+, blood 2+ without any casts. His blood pressure on that occasion was 140/96mm Hg, which lasted approximately four hours.

Because of left flank pain and hematuria, an intravenous pyelogram (IVP) and renosonogram were done. IVP showed nonfunctioning left kidney

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FIGURE 1—Pre-streptokinase infusion: Abdominal angiogram showing complete occlusion of right renal artery and emboli partially occluding left main renal artery.

nd renosonogram showed a normal-ized kidney without any evidence of ydronephrosis. Because of the non-unctioning left kidney, hematuria, and he rise of serum LDH, 441 units (nor-nal 75-196 units), the patient under-vent an abdominal angiogram with elective left renal angiogram through he transfemoral route, which showed hat he had filling defect in the left renal rtery with complete occlusion of the rtery.

Because of his precarious medical ondition, the patient was treated with ntravenous Heparin 3,000 unit bolus nd 2,000 units q every hour by con-rolled drip. His activated thrombo-plastin time (P.T.T.) was maintained at wice the controlled value. Twenty-four hours after being on Heparin, he again complained of right and leftsided flank pain and became oliguric, with urine output of approximately 5-10cc/hour with BP 110/60mm Hg, heart rate 70/min. Repeat renal angiogram at this time showed a large filling defect on the left renal artery, and complete occlusion of the right renal artery *(Fig. 1)*.

Because of deterioration of the patient's thromboembolic disease, it was decided that he would be treated with fibrinolytic therapy. Selective renal arterial catheters—F7 were positioned into both renal arteries through the percutaneous transfemoral route and were kept in that position. Through individual renal artery catheter, streptokinase 50,000 units were infused per hour/each line. Renal angiogram was repeated 12 hours and 48 hours later. At 48 hours all the large emboli were completely dissolved *(Fig. 2)*. However, there were small emboli still visible in the peripheral branch of the right renal artery.

At this time, the patient had a hematoma on his arm as well as bleeding from the surgical wound. As a result, streptokinase was discontinued, and the patient was started on IV Heparin and oral Coumadin. Protime, PTT were maintained up to twice the controlled value. Even with dissolution of emboli, the patient remained in oliguric renal failure and needed intermittent hemodialysis. Three weeks later, his urine output gradually improved to 600 cc/24 hours, but he still needed maintenance dialytic therapy.

Nine weeks after admission, the patient developed chest pain with supraventricular tachycardia and hypotension, and died of cardiogenic shock. Autopsy showed no evidence of thromboemboli in the renal vascular system or heart, although extensive severe ischemic acute tubular necrosis in both kidneys, and recent anterior wall myocardial infarction were noted.

Discussion

Clinical manifestations of renal artery occlusion are protean and usually are acute non-radiating flank pain, nausea, and vomiting in only approximately 50% of the cases.[4,6] Unfortunately, these manifestations often are obscured by serious co-existing medical conditions, as evident in our case. Pertinent but non-specific laboratory findings usually are hematuria, proteinuria, rise of serum lactic dehydrogenase and elevated blood urea nitrogen (BUN) and serum creatinine (Scr.).[4] Renal angiogram is diagnostic.

Causes of bilateral renal artery occlusions usually are emboli from primary cardiac disease associated with rheumatic valvular or ischemic heart disease with atrial fibrillation, valvular vegetation due to endocarditis or thrombus on prosthetic valve, and thrombus following myocardial infarction. Other causes include atherosclerotic debris



FIGURE 2—Post-streptokinase infusion: Selective right and left renal angiogram now showing dissolution of emboli.

emboli and atherosclerotic occlusion of renal arteries. Renal artery emboli usually is unilateral, though bilateral emboli and emboli to the solitary kidney have been present in more than 30% of the cases.[7]

Considerable controversy exists between the operative and non-operative approach in treating renal artery embolism.[1,4,7] Though survival probably is the same in medically and surgically treated groups, surgically treated groups tend to have a higher rate of renal preservation (68% surgically vs 37% medically).[7] Most medically treated patients, however, are a high risk group which are not surgical candidates because of underlying severe medical conditions. Medical treatment for renal artery emboli usually are systemic heparinization or local fibrinolytic agent (streptokinase) infusion.

Thrombolytic therapy with fibrinolytic agent in vascular thrombosis is an evolving concept. Mechanism of action of streptokinase is through "plasminogen activator." Streptokinase activates plasminogen to "activator-complex," which converts plasminogen to plasmin. Plasmin, a proteolytic enzyme, degrades fibrinogen and other plasma protein and as a result dissolves the clot.[5]

Although streptokinase is being used in coronary artery thrombosis and pulmonary arterial emboli, its use in renal artery emboli is not well reported. Fischer, *et al.* reported a case of unilateral renal artery emboli successfully treated with streptokinase.[2] In our patient, complete resolution of emboli 48 hours after use of streptokinase demonstrates the effectiveness of the therapy, and at autopsy there was no evidence of emboli in the cardiovascular system.

Delay in institution of therapy may be the cause of severe acute tubular necrosis seen in our patient. Sanfelippo and Goldin have demonstrated experimentally that infusion of streptokinase directly into the canine renal artery within one hour of embolization resulted in prompt dissolution of emboli and restoration of normal renal function.[3] From this experimental study and our case, it appears early intervention is necessary in the preservation of renal function, although recovery of renal function 30 days after onset of embolism also has been reported.[4,6]

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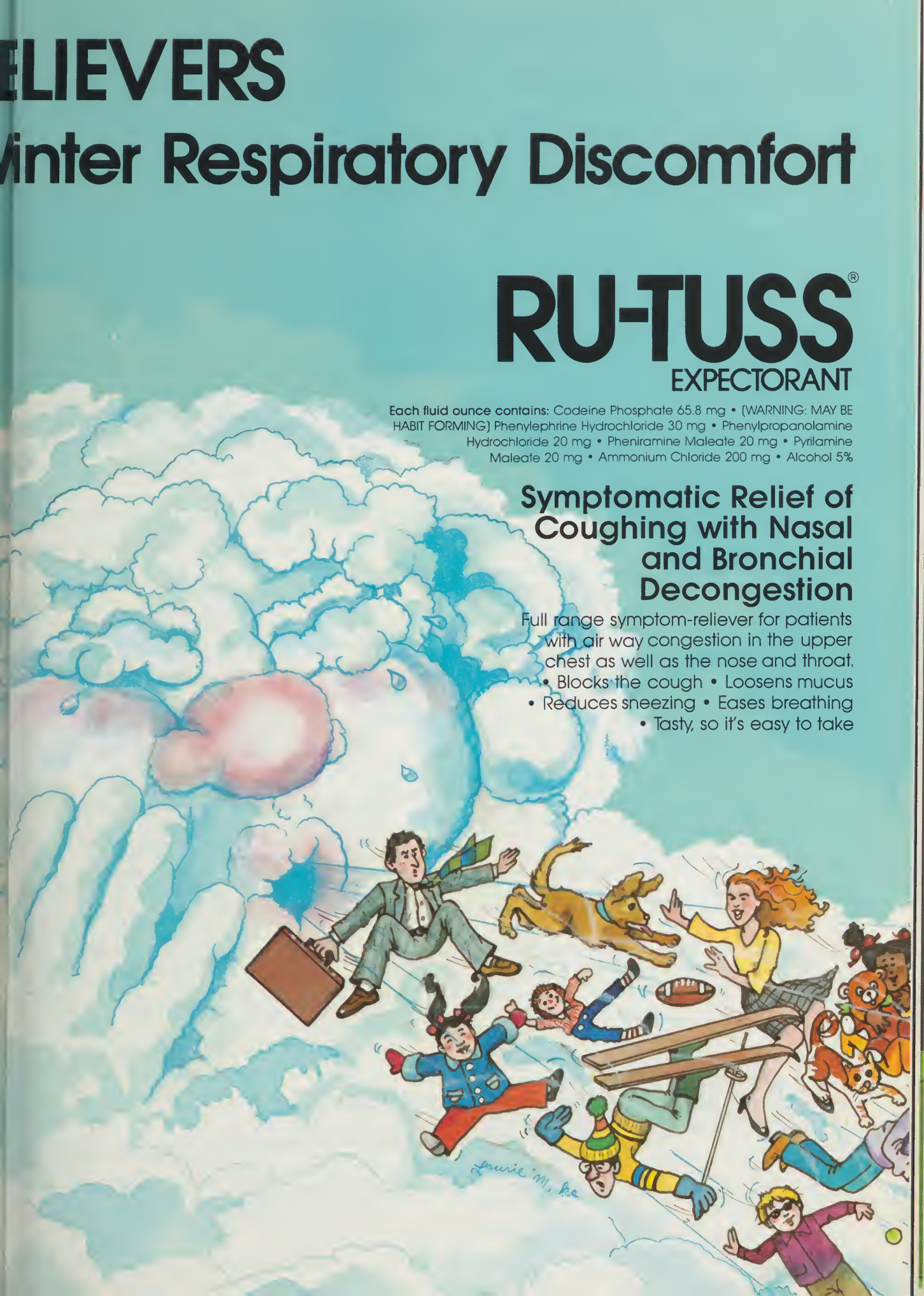
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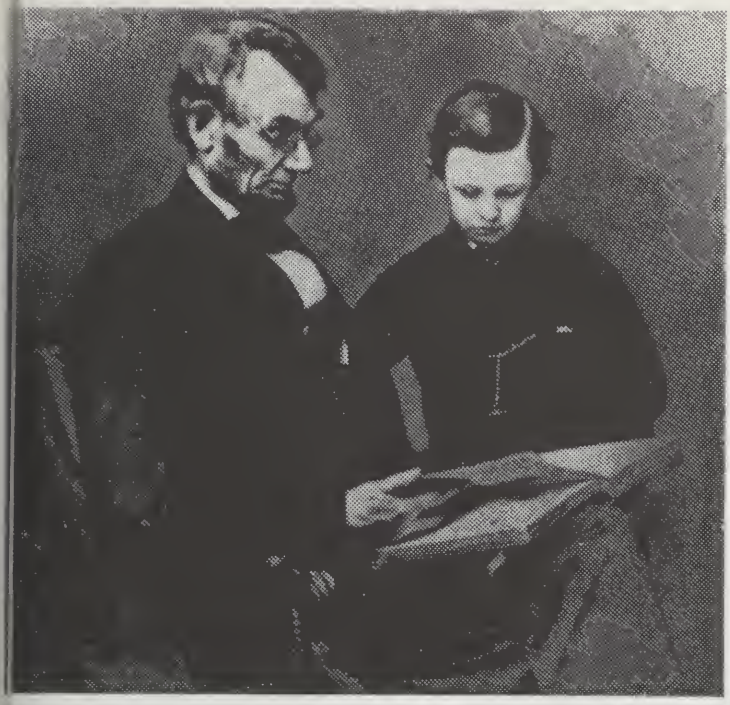
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CME QUIZ

Melanoma

CONTINUED FROM PAGES 785-787

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. The five-year survival for all patients with melanoma is:
   a. 30%
   b. 50%
   c. 70%
   d. 90%

2. A Clark level II melanoma has its deepest penetration in/at:
   a. dermal-epidermal junction
   b. papillary dermis
   c. reticular dermis
   d. the sweat glands

3. Unfavorable regional locations of the primary lesion in melanoma include:
   a. upper back
   b. buttocks
   c. thigh
   d. face

4. The drug usually used in isolated limb perfusion for melanoma is:
   a. DTIC
   b. CCNU
   c. Nitrogen mustard
   d. Phenylalanine mustard

5. Of the pre-existent nevi giving rise to melanoma, the most common is:
   a. blue nevus
   b. junctional nevus
   c. intradermal nevus
   d. compound nevus

6. A skin lesion 8 mm in diameter suspected of being a melanoma should be approached initially by:
   a. shave biopsy
   b. incisional biopsy
   c. adequate excision with primary closure of the defect
   d. wide and deep excision and skin graft

7. The Breslow classification of melanoma is based on:
   a. the stage of the disease
   b. the quantitative microscopic depth of invasion
   c. the regional location of the primary lesion
   d. malignant transformation in a benign nevus

8. Most melanomas are classified as:
   a. nodular
   b. lentingo maligna melanoma
   c. acryl lentiginous melanoma
   d. superficial spreading melanoma

9. Each of the following variables can have a significant influence on the prognosis of melanoma except:
   a. the body region involved
   b. the microscopic depth of invasion
   c. the age of the patient
   d. the stage of the disease

10. Incisional biopsy of a lesion suspected to be melanoma is usually contraindicated because:
    a. it may not yield the lesion's deepest level of invasion
    b. it may provoke metastases
    c. the pathologist may be unable to make a diagnosis
    d. delayed healing often ensues

October CME Quiz Answers

Following are the answers to the CME quiz that appeared in the October 1982 issue of THE JOURNAL: "The Management of Ovarian Carcinoma," by Frederick B. Stehman, M.D., and Clarence E. Ehrlich, M.D.

1. d	6. c
2. d	7. a
3. c	8. d
4. c	9. b
5. b	10. d

Answer sheet for Quiz: (Melanoma . . .)

1. a b c d	6. a b c d
2. a b c d	7. a b c d
3. a b c d	8. a b c d
4. a b c d	9. a b c d
5. a b c d	10. a b c d

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

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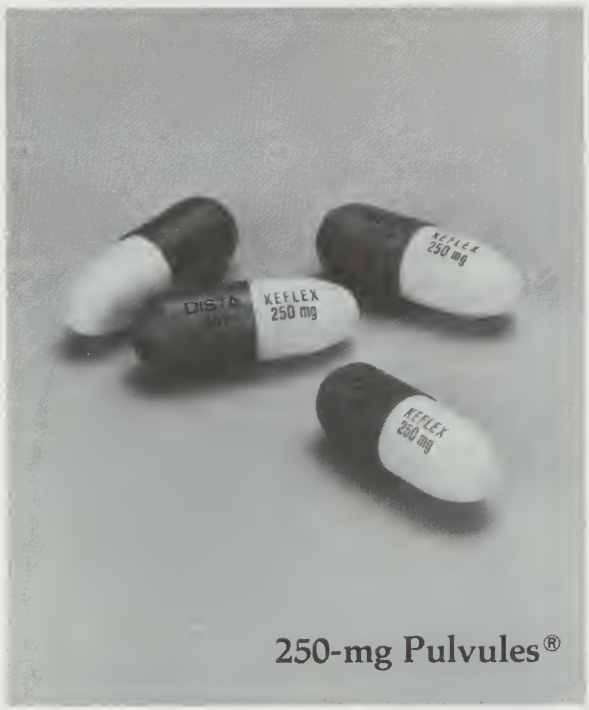
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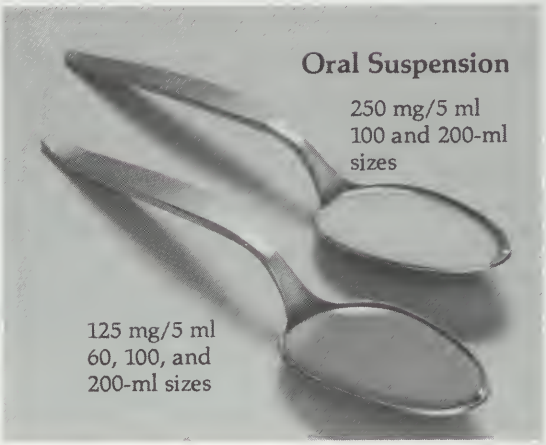
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To be eligible for this month's quiz, send your completed, signed application before Dec. 10, 1982 to the address appearing at the top of this page.

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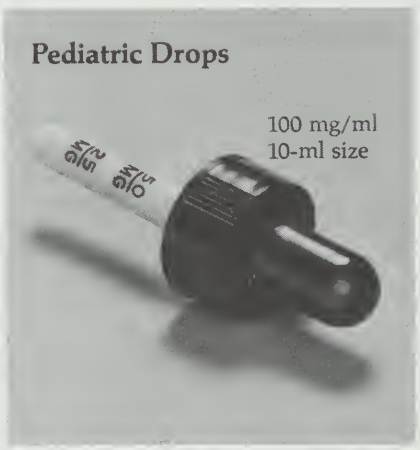
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AUXILIARY REPORT

Karen (Mrs. Robert M.) Schleinkofer
President, ISMA Auxiliary

The Northern Area Auxiliaries are "Up, Up and Away" toward a successful Auxiliary year in 1982-83. They are led by the enthusiastic Northern Area vice president, Mrs. Fred Mackel (Alfreida) of Fort Wayne.

One of the interesting projects started by newly organized Wabash County, with Susie Ferguson as president, is the infant car seat loan program which got under way in June with the loan of 30 seats. The program is an excellent example of the Auxiliary working in coalition with other groups.

After two years the new Porter County Medical Auxiliary "feels solid and well organized," reports Bonnie Swarner in her President's Report. With a membership of 43 and member attendance at meetings of 30-40 and increased Auxilian participation and interest, Porter County Auxiliary must be doing some right things in the right way. One of their projects "in the works" is "The Hoosier Doctor Says," short taped interviews with doctors for two-minute spots on radio.

The Cass County Auxiliary began its activities this summer when they assisted the American Heart Association with its blood pressure booth at the County Fair. They also distributed booklets on smoke inhalation. Betsy Morrical, the Cass County president, says one of her most important goals is to establish an effective means of communication with members.

Sue Magno of Grant County reports some tremendous (and many) money-raising projects for her Auxiliary beginning with their annual ice cream social in August and looking forward to a wine-tasting party, a garage sale, a dinner cooked by members and sold to their doctors at Marion General Hospital and a bake sale at a Mall.

Dolores Ericson outlined a busy, worthwhile, fun-filled schedule for Howard County when she sent her goals and plans for the year. One exciting idea was her desire to develop a Cheer Committee to make regular calls and contacts on members who are no longer active due to their spouse's retirement or death or disability. Another novel project is the "Let's Pretend Hospital," a simulation hospital experience for children in kindergarten.

Among the activities planned by Lake County-Hammond Auxiliary, according to President Nancy Gustaitis, are a tour and luncheon at the Art Institute of Chicago; the annual blood drive with the American Red Cross, Auxiliary members and physicians, and other community groups; and an International Night dinner, with Auxilians preparing a Middle Eastern cuisine. The annual joint project with the East Chicago and Gary Auxiliaries of Lake County will be a wine-tasting party with cheese, fruit, and homemade bread for nibbling. They hope to sell lots of wine to support their favorite charities.

The Lake-Gary Auxiliary has organized a benefit-dinner show featuring Liberace on Wednesday, Nov. 24, at the Holiday Star Theatre in Merrillville, with proceeds going to AMA-ERF. Rosy Yeretsian, president, will be working to increase membership and good relationships by more social, get-acquainted events with members and spouses. Their workshops on Woman's Changing Role, Assertiveness Training, and Verbal and Non-verbal Communication Skills sound challenging.

Yvonne Elshout of the LaPorte-LaPorte Auxiliary, sent out a June communique to all members suggesting a new format for meetings—paid lunches in members' homes, with a committee of the Auxiliary providing and preparing the food to support their health-related organizations.

Distributing the pamphlet "You Can Lower Your Health Care Costs—Here's How" in doctors' offices with their Auxiliary name stamped on them will be a project of the Marshall-Starke Auxiliary, reports President Mary Holm.

The small Noble-LaGrange Auxiliary has mainly social meetings with an average attendance of five; yet last year they managed a tour of the McMillen Health Center in Fort Wayne, a program on interior decorating, a dinner-pool party, and a quilt show that raised $1,900 for their hospital-building project.

Suzanne Miller's schedule of monthly meetings in Wells County will start with a program on "Parliamentary Brush-Up" by former state president, Betty Kephart, and will include a visit in October to her barn-type primitive workshop for a look at Colonial weaving drafts and patterns.

Sharon Harris, president of Allen County, writes, "The biggest challenge an Auxiliary leader faces is providing something worthwhile for every member." She aims to nurture each regular member and new member by getting her involved in community health service, Auxiliary fund raisers, social and business meetings, interest groups, legislation study and activity, and other regular projects of her County Auxiliary. In addition, she hopes to involve everyone in planning an "Up, Up and Away" House of Delegates in Fort Wayne in April for all Indiana Auxilians.

Interesting programs, social times, fund raising, support of AMA-ERF, and other health-related projects, honoring their spouses on Doctor's Day, volunteering in community health services, cooperating with the ISMA Auxiliary and the AMA Auxiliary, working for good medical legislation, enthusiastic leadership, talented membership, YES! Northern Indiana County Medical Auxiliaries have them all for an "Up, Up and Away Year."

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Dalmane *(flurazepam HCl/Roche)* patients fall asleep faster, sleep longer and seldom awaken with morning hangover.

Feeling well rested in the morning usually means having slept well the night before. And for insomniac patients receiving hypnotic therapy, a good morning also means awakening with few side effects from their medication. Many physicians choose Dalmane for their patients who suffer from insomnia for this very reason.

Aside from enabling patients to fall asleep more quickly and sleep longer, Dalmane seldom causes morning hangover. Most Dalmane patients feel alert and refreshed when they awaken. In 53 paired-night clinical studies comparing Dalmane and placebo in 2010 insomniac patients with a variety of secondary diagnoses, most Dalmane patients awakened more alert and refreshed, and less groggy and drowsy, than on nights when they had taken only placebo.[1] In a double-blind crossover study of 42 patients in private practice, approximately three as many patients reported feeling refreshed and alert awakening after a night on Dalmane (flurazepam/I compared to placebo nights.[2] This difference was h significant ($p<0.001$). And a retrospective study c hospitalized patients who received Dalmane reveal a 3.1% incidence of side effects.[3]

While residual effects from Dalmane therapy infrequent, patients should be cautioned about drin alcohol, driving or operating hazardous machinery ingesting the drug.

Efficacy and safety in a broad range of patient types.

Over 2000 clinical trials involving more tha 10,000 patients have shown that Dalmane patien asleep sooner, sleep longer and experience fewer n awakenings.[4] The safety and efficacy of Dalmane l been demonstrated in medical and surgical hospital patients, in patients seen in office practice and in el patients.[5-8] Since the risk of oversedation, dizziness

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on and/or ataxia increases with larger doses in the elderly, it is recommended that the dosage be limited to 15 mg.

Moreover, the efficacy and safety of Dalmane for the treatment of insomnia have been demonstrated in thousands of patients with a variety of primary medical conditions, including cardiovascular, neuropsychiatric, endocrine-metabolic, gastrointestinal, genitourinary, respiratory and musculoskeletal disorders.[1] Dalmane (flurazepam HCl/Roche) is contraindicated in pregnancy and in patients hypersensitive to the drug.

Avoids rebound insomnia upon discontinuation.

Rebound insomnia—a worsening of sleep beyond pretherapy levels after drug discontinuation—has been reported as a potential clinical problem with some hypnotics.[9,10] However, this problem has not been reported with Dalmane. In eight out of eight sleep laboratory studies, there were no reports of rebound insomnia.[11] When you prescribe Dalmane, you can be confident of efficacy that enhances therapeutic progress. Your insomniac patients can be assured of a restful night, night after night—a good start for a good morning.

References: 1. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 2. Zimmerman AM: *Curr Ther Res 13*:18-22, Jan 1971. 3. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther 21*:355-361, Mar 1977. 4. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 5. Meyer JA, Kurland KZ: *Milit Med 138*:471-474, Aug 1973. 6. Feffer HL, Gibbons B: *Med Times 101*(8):130-135, Aug 1973. 7. Jacobson A *et al*: *Psychophysiology 7*:345, Sep 1970. 8. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc 27*:541-546, Dec 1979. 9. Kales A, Scharf MB, Kales JD: *Science 201*:1039-1041, Sep 1978. 10. Kales A *et al*: *JAMA 241*:1692-1695, Apr 1979. 11. Monti JM: *Methods Find Exp Clin Pharmacol 3*(5):303-326, 1981.

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Please see following page for summary of product information.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

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This ad is for all those who ever wonder where the money goes.

Her name is Dana. And, she was born with impaired hearing. But this year, thanks to the therapy she will receive at her local hearing and speech center, she'll be able to clearly hear the world around her for the first time.

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e financed purchase of a registered Holstein cow and a proven insured breeding program typically **return to the purchaser 20 to 50 percent a year return on initial investment with a first year tax write-off of 200% to 350%.**

this era of rising fixed costs, the dairy industry is dependent upon the increase in milk production from each cow for its profitability. Artificial insemination was primarily responsible for the increase in milk production averages from less than 6,000 pounds per year during the 1950's to more than 13,500 pounds per year in 1982. Today a new procedure, **embryo transfer, enables a cow to have up to 60 offspring** a year. Obviously, the donor cows chosen for these intensive breeding programs must be of the most prized pedigrees and high milk-producing capability. These superior registered Holstein cows typically produce more than 20,000 pounds of milk per year with 4% butterfat content and constitute less than 1/4 percent of all Holsteins. The high demand for these cows establishes their value from $100,000 to more than a million dollars each.

centives were **built into the current tax laws to encourage investors to purchase these elite animals and put them into a breeding program** which will maximize their potential for producing offspring and therefore increase the dairy industry milk production averages.

The purchase of a registered Holstein cow is considered as capital equipment **depreciable using the ACRS method** for 5 year equipment and additionally entitled to a **10% investment tax credit.** The purchase can be made with 25% down with the balance financed over three years at a 15% annual interest rate.

The purchaser of one of these superior Holstein cows would probably want to contract with experts for the care, feeding, management and breeding of these unique cows. **A management contract can be purchased which includes professional care and a complete insurance policy.** Additionally, an Embryo Transfer Program can be arranged which will enable the breeding goals of the cow owner to be achieved. All services are deductable as business expenses and some contracted services can be accrued as tax deductions prior to the actual payment.

You will find that owning a superior registered Holstein cow not only provides a good return on investment and tax advantages but is a good hedge against inflation as well.

For more information contact Holstein Breeding Enterprises for detailed brochures about Holstein cow ownership and management.



holstein breeding enterprises, inc.
p.o. box 7
syracuse, indiana 46567
(219) 856-2070

FUTURE FILE

Coronary Artery Disease Update

The 2nd Annual Coronary Artery Disease Update of the University of Wisconsin Medical School will be held in Madison, Dec. 3 annd 4. It is designed for primary care physicians and specialists in coronary disease.

Write to Sarah Z. Aslakson, 465B WARF Bldg., 610 Walnut St., Madison, Wisc. 53706, (608) 263-2856.

Adolescent Medicine

"Adolescent/Young Adult Medicine" will be the subject of a CME conference from Feb. 23 to March 1, 1983, at the Wailea Beach Hotel, Maui, Hawaii, sponsored by the Hurley Medical Center, One Hurley Plaza, Flint, Michigan, 48502. Certified for 20 hours credit. Write the Center or call (313) 766-0142.

Neurology Course in Chicago

"Neurology for the Non-Neurologist" is the subject of a CME course sponsored by Rush-Presbyterian-St. Luke's Medical Center to be held in the Westin Hotel, Chicago, Dec. 8 to 10. AMA credit Category 1 is 20 hours. Write or phone University Office of CME, 600 S. Paulina, Chicago 60612, (312) 942-7095.

Behavioral Neurology

Vanderbilt University School of Medicine will conduct its First Symposium on "Behavioral Neurology: Higher Cortical Functions and the Brain" on June 2 to 4, 1983. For full information write to Mrs. Joan Sullivan, Vanderbilt University School of Medicine, Nashville, Tenn. 37212.

Thermography, Breast Screening

Flexi-Therm, Inc. will sponsor a seminar on Thermography and Breast Screening from 7:30 a.m. to 5 p.m. on Friday, Jan. 21, 1983, at the Chicago Marriott O'Hare Hotel (Airport). The fee for physicians is $150. Contact Paula Hobbins, P.O. Box 5368, Madison, Wisc. 53705—Phone (608) 273-0362.

Human Sexuality

Humber College will conduct its Second Annual National Conference on Human Sexuality at the Westin Hotel, Toronto, Canada, Nov. 1 and 2. The registration fee is $240, which includes refreshments and program materials. Write or call Professional & Management Development, 205 Humber College Blvd., Texdale, Ontario, M9W 5L7, (416) 675-7420.

Kentucky CME Courses

The University of Kentucky College of Medicine announces the following CME courses, all of which will be held at the Hyatt Regency Hotel, Lexington, Ky., except where indicated:

Trauma—The Disease of the 80s, Dec. 17-18, 1982;

14th Family Medicine Review—Session I, Feb. 20-25;

Advanced Cardiac Life Support Provider-Instructor Course, March 11-13, University of Kentucky Medical Center, Lexington;

12th Annual Medical Aspects of Sports Symposium: Prevention and Treatment of Athletic Injuries, March 31-April 1;

Frontiers in Endocrinology and Metabolism, April 15-16;

Diagnosis and Treatment of Common Human Tumors, April 21-23.

For additional information, contact Frank R. Lemon, M.D., College of Medicine, University of Kentucky, Lexington 40546—Phone (606) 233-5161.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Emergency Aid Course

"Early Care of the Critically Injured" will be covered by a course designed for practicing surgeons and emergency physicians at the St. Francis Hotel, San Francisco, Dec. 1 to 3. The sponsors are the College of Surgeons Trauma Committee for Northern California and the Surgery Services of two of the campuses of the University of California. The fee is $295. Registration is limited to 300.

Address Robert Wm. Steele, P.O. Box 40128, San Francisco 94140.

Internal Medicine Course

"The Year in Internal Medicine," the 19th Annual CME Course of Northwestern University Medical School, is oriented for internists, family practitioners and general practitioners. It will be held Jan. 26 to 29 at the Chicago campus of the Medical School.

For more information, write or phone Paula Puntenney, CME, Northwestern University Medical School, 301 E. Chicago Ave., Chicago 60611, (312) 649-8533.

Pathology Meeting Slated

The United States-Canadian Division of the International Academy of Pathology will hold its Annual Meeting from Feb. 28 to March 4, 1983, at the Atlanta Hilton, Atlanta, Ga.

For details write Dr. Nathan Kaufman, 1003 Chafee Ave., Augusta, Ga 30904, (404) 724-2973.

2-Week Cytopathology Course

Cytopathology will be the subject o an intensive postgraduate refreshe course at The Johns Hopkins University School of Medicine April 18 to 29 1983. It is designed for pathologists wh are certified or qualified by or for th American Board of Pathology (PA) Credit hours are 125 in AMA Categor 1. A loan set of slides with texts will b sent to each participant for home stud in March and April prior to the course Apply before Feb. 2, 1983, to John K Frost, M.D., The Johns Hopkins Hospital, Baltimore, Md. 21205.

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BOOK REVIEWS

Current Clinical Topics in Infectious Diseases

Edited by Jack S. Remington and Morton N. Swartz. Copyright 1982, McGraw-Hill Book Co., New York. 393 pages.

In some fields of medicine "updating" books are of limited value because little significant progress has occurred that is worth recording, and what is presented is essentially a review of already established practices. Not surprisingly, this book is a notable exception. It has been compiled by two distinguished infectious disease experts. Dr. Remington is chairman of the Department of Infectious Diseases and Immunology of the Palo Alto Medical Foundation, and Dr. Swartz is Professor of Medicine at Harvard and chief of the Infectious Disease Unit of Massachusetts General Hospital.

In this book the topics chosen for review are clearly those about which the average practicing physician needs more knowledge. Sample topics are new concepts in Guillain-Barre Syndrome; newer antifungal agents and update on old ones; role of ultrasound and C-T scans in diagnosis and treatment of intra-abdominal abscesses; treatment of infections due to atypical mycobacteria; infections associated with intravascular lines; candida endophthalmitis, etc.

I find the piece on newer antiviral agents of particular interest. The point is made that although nucleoside derivatives and interferons show considerable promise as curative agents, they have little value unless given early when definitive diagnosis often is hard to achieve. Preliminary studies of herpes virus vaccines show *some* promise, and those against Virus B hepatitis *more* promise. However, nothing like the fairly solid immunity produced by vaccines against smallpox, polio, measles, mumps and rubella has been observed.

Vidarabine appears to be less toxic than indoxuridine and arabinose C and possibly more efficacious than its predecessors in treatment of both systemic and local herpes simplex and varicella-zoster infections. In controlled studies with vidarabine administered daily at 15 mg./kg., mortality was reduced from 70% to 28% at one month and to 44% in six months—not very impressive, but in such a serious disease, at least, encouraging.

Acyclovir, now easily obtainable, seems to have minimal side effects. Used as an ointment (3%) it has shortened the course of herpes and corneal ulcers and has shortened the duration of symptoms in genital herpes infection. In anecdotal reports, acyclovir has apparently had a favorable effect in both herpes simplex and varicella-zoster infections. However, well controlled, extensive clinical studies had not been reported at the time of publication of this book. Results in extensive animal models have been impressive.

Interferons were first described in 1957. The many studies reported since then have demonstrated antiviral effects in both man and laboratory animals but their precise role in both prophylaxis and treatment still is not firmly established. This is due in part to the fact they are induced in cell cultures by a variety of cells including viruses and cell cultures of both leukocytes of various types and fibroblasts. Also, interferons have always been in short supply.

Clinical studies have been confusing but indicate that interferons will be very useful antiviral agents when enough is produced to make them easily available. When applied intranasally in volunteers subsequently challenged with rhinovirus, symptoms were significantly reduced as compared to non-protected individuals. The results when influenza virus was the inoculum were less impressive. Systemic prophylaxis in patients undergoing renal transplants in placebo-controlled studies indicated no significant protection in one group, a definite decrease in viremia in another. Systemic therapy in a group of children with varicella and a group of adults with herpes zoster appeared to shorten the course and prevent serious complications to some extent as compared to controls. Results in treatment of viral hepatitis are equivocal.

The discussion on deep infections following total hip replacement emphasizes that in Charnley's original report in 1969 the incidence of deep infection was 8.9%. Since that time, world wide, the incidence has been reduced to approximately 1.0%. However, in this relatively small group contracting infections the consequences are so disastrous that the problem deserves special attention. The whole range of contaminating micro-organisms may be causative but the large majority are *Staphylococcus aureus* and epidermidis. Among gram-negative species, *E. coli, Pseudomonas aeruginosa,* and *Proteus mirabilis* are most common. In a report from the Mayo Clinic, more than half of the post-operative infections presented four to 50 months after surgery. Many of the very late ones were apparently of hematogenous spread from oral and urinary tract infections. Of the patient-related factors, advanced age, obesity, diabetes and corticosteroid therapy were most important. Previous surgery in the hip being replaced also contributed to the risk.

No new recommendations regarding antibiotic treatment are made by the authors except for emphasizing that the drugs must be administered in full doses over a long period. It is particularly unfortunate when enough osteomyelitis and/or cellulitis has occurred that removal of the prosthesis is required. In such instances replacement of the prothesis usually must be postponed many months and accompanied by intravenous antibiotic therapy over a period of many months.

My guess is that anyone who takes time to look over the contents of this excellent volume will find some gems dealing with areas in infectious disease that he has missed in perusals of common medical journals and texts. I found the discussions of infrequently discussed but quite important topics fascinating.

Paul S. Rhoads, M.D.
Richmond
Internal Medicine

Gower Publishing is the distributor in North America of *Current Trends in British Gerontology.* It consists of a collection of papers on geriatrics and is edited by Rex Taylor and Anne Gilmore. The collection places an emphasis on evaluation of therapies and forms of care. 230 pages, $35.

'eripheral Vascular Disease

A need exists for a succinct but comrehensive handbook about peripheral ascular disease. Four such texts have ppeared recently, all purporting to fill his void. They are:

Diagnosis and Management of Peipheral Vascular Disease, edited by D. C. Miller and A. J. Roon, Copyright 982, Addison-Wesley Publishing Co., ndianapolis, 314 pages with illustraions, $34,95;

Practical Noninvasive Vascular Diagnosis, by R. R. Kempczinski and J. 3. T. Yao, Copyright 1982, YearBook Medical Publishers, Chicago, 428 pages with illustrations, $42,95;

Handbook of Noninvasive Diagnostic Techniques in Vascular Surgery, by B. Y. Lee, F. S. Trainor, W. R. Thoden and D. Kavner, Copyright 1981, Appleton-Century-Crofts, New York, 371 pages with illustrations, $22.50; and

Manual for Vascular Medicine and Surgery, by T. Matsumoto, Copyright 1982, Appleton-Century-Crofts, New York, 262 pages with illustrations, $20.

Miller and Roon's overview will delight the non specialist reader. Throughout, world-class authors address their fields of interest: e.g., Roos on thoracic outlet syndrome, Stanley on renovascular hypertension, Thompson on cerebrovascular insufficiency, etc. Enough references and data are given, and topics in need of wider exposure like peripheral arterial atheroembolism are included.

Experienced vascular surgeons and others interested in setting up a vascular laboratory will enjoy Kempczinski and Yao's book. It is quite readable and delivers exactly what the title promises: a useful guide to the appropriate clinical application of noninvasive tests. Basic science is included only where necessary to enhance the reader's understanding of the test's practical application. A unique chapter on photoplethysmography to evaluate chronic venous insufficiency typifies how this book successfully copes with the challenge of explaining the unfamiliar. Ways to avoid artifacts, interpret results, and choose between types of instruments are all well covered.

Lee, *et al.* have written a more technical book, harder to read, and harder to summarize. It emphasizes applied physiology and contains unusual information, such as in the chapter on thrombo-elastography. (This test explores how to detect and manage hypercoagulability.) Selected case reports help tie together this book's somewhat uncoordinated message. How objective tests can predict successful amputation levels, for example, are elucidated in this way. The sections on instrumentation are too detailed for most readers, though medical technicians may find them helpful.

Last and least useful is *Manual for Vascular Medicine and Surgery.* Most of its pages are filled with partial descriptions of disease entities and various vascular surgical procedures. Those wanting just a smattering of knowledge about vascular disease might find it a pardonably abbreviated survey.

Alan T. Marty, M.D.
Evansville
Cardio-Vascular Surgery

Coping in Medical School

By Bernard Virshup, M.D. Copyright 1981, Health Sciences Consortium, 200 Eastowne Drive, Chapel Hill, N.C. 27514. 130 pages, $14.20.

This book is intended to help the medical student cope emotionally with medical school. Its purpose is to prevent burn-out, boredom and cynicism, which the author states is a symptom of distress. The author states that the medical student must be oriented toward himself/herself to become (and remain!) patient-oriented.

In the introduction, medical school is shown to cause change and present stress to medical students. Subsequent chapters take up meeting one's needs in medical school; accepting and limiting responsibility; building a caring network; maintaining independence, individualization and identity; maintaining self-esteem; dealing with internal critics and guilt; meeting security needs; actualizing potential; and maintaining intuition, creativity and right brain activity. Further chapters describe response to stress, dealing with anger, dealing with depression, presenting a self-awareness workbook, and preventing physician impairment.

The book meets its objective of aiding the medical student to cope with stress in medical school.

I have the following concerns:

1. A stressed medical student may be unable to follow the exercises outlined in the book because of his/her anxieties and depression.

2. Support groups are suggested. I know that groups form naturally among friends in medical school and they are indeed supportive. However, such groups may do harm if the membership is not carefully selected and if the group leader is inexperienced or not identified.

3. The idea is presented that once in a medical school, the medical student can relax, devote all his attention to his education, neglect evaluations and grades. My own experience tells me that competition is still rampant in a medical school and that good medical grades allow one to choose the specialty of his desire and the desired residency within that specialty.

The book presents a well organized and documented plan to cope with stress in medical school; the same plan could be used to cope with stress in any situation. Medical schools would do well to recommend this book to their students.

Alvin J. Haley, M.D.
Indianapolis
Family Practice

Dover Publications announces a new book, *Essentials for the Scientific and Technical Writer.* The author is Hardy Hoover, a technical editor at Atomics International. Subject matter covers special needs for writers, how to organize thoughts, how to write effective sentences, how to write strong paragraphs, and how to prepare the appendix and index. Paperbound, $4.

Year Book Medical Publishers have released *Peptic Ulcer* for use by nonspecialist physicians who care for patients with ulcers. It is written by members of the staff of the Center for Ulcer Research and Education. 179 pages, $25.50.

NEWS NOTES

Impotence in Diabetic Men

A patient education brochure, discussing the causes, diagnosis and treatment of impotence in diabetic men, was introduced recently at the American Association of Diabetes Educators Annual Meeting.

Copies of the brochure are available by writing American Medical Systems Consumer Education Department, P.O. Box 9, Minneapolis, Minn. 55440.

$675,000 for Senility Research

The Commonwealth Fund has awarded three five-year grants for basic research on the major causes of Alzheimer's disease. Each grant of $225,000 will support a full-time investigator, to be called a Commonwealth Fund Fellow, for five years at the Albert Einstein College of Medicine, the Johns Hopkins University School of Medicine, and the Yale University School of Medicine.

Brochure for CT Users

General Electric Company has a four-page brochure that describes additional training available to computed tomography system users. The full-color publication reviews educational opportunities for physicians and technologists in CT Training Extended, a General Electric program that responds to the growing needs of a radiology or CT department.

Write GE, Medical Systems Operations, P.O. Box 11944, Milwaukee, Wisc. 53211.

CASPER Award

The Wright Institute of Otology, which is affiliated with Community Hospital in Indianapolis, recently won the CASPER award for having sponsored the 1981 Hearing Fair at the Washington Square Mall.

CASPER is an acronym for Community Appreciation for Service in Public Enlightenment and Relations. More than 50,000 persons attended the fair. Free hearing tests were administered to nearly 2,500 attendees. The CASPER Award is granted by the Community Service Council, a division of United Way.



Give me the Parts Department.

Infant Formula Brochure

The Infant Formula Council is publishing a brochure entitled "Infant Formula: Questions and Answers." It is designed for supplying information to parents concerning nutritional components in various formulas, proper use of formulas and other general information related to infant feeding.

Sample copies may be obtained by addressing the Council at 5775 Peachtree-Dunwoody Road, Suite 500-D Atlanta, Ga. 30342. Later, the Council will announce when the brochures are available in quantity and what, if any is the charge.

Oncology Fellowship

The Sony Corporation of America Foundation, together with Dr. James F. Holland, director of the Cancer Center of Mount Sinai School of Medicine, announces establishment of the Iwama Memorial Sony International Fellowship for the study of oncology. The fellowship will honor the late Kazuo Iwama, president of Sony Corporation, Tokyo.

Correction

The word "ophthalmoplegia" (correct spelling) was misspelled in the article, "Central Nervous System Lesions in Fisher Syndrome: Report of a Case with CT Findings," which appeared in the September 1982 issue of THE JOURNAL.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Alig, Vincent B., Indianapolis
Anderson, Milton H., Evansville
Ayoub, Adel H., Valparaiso
Campbell, Betty J., Terra Haute
Cline, Donald L., Indianapolis
Conard, Douglas S., Noblesville
De La Flor, Eduardo P., Evansville
Gordon, Mark, Munster
Donald L. Hall, Petersburg
Hernandez-Flores, G. E., Highland
Herrell, Michael A., Evansville
Jones, John D., Anderson
Kauffman, Gerald G., Elkhart
Kingma, Roy E., DeMotte
Lohman, Robert M., Fort Wayne
Lovett, Harvey D., Zionsville
Moeller, Victor C., Fort Wayne
Ronald J. Pancner, Fort Wayne
Parker, E. Camille Killian, Logansport
Parker, Francis W., Logansport
Snodgrass, Robert E., Indianapolis
Zimmerman, William H., Syracuse

Here and There . . .

. . . **Dr. Patrick J. V. Corcoran** of Evansville has been elected chairman of the AMA Council on Medical Education.

. . . **Dr. Otis R. Bowen,** former Governor of Indiana, has been appointed chairman of the 1982 Social Security Advisory Council, which will review the Medicare program and provide a report by July 1, 1983.

. . . **Dr. Richard T. Miyamoto** of Indianapolis has been appointed to the board of governors of the American Academy of Otolaryngology-Head and Neck Surgery.

. . . **Dr. Howard C. Deitsch** of Richmond has been named medical director of Reid Memorial Hospital's hospice-home care program.

. . . **Dr. Richard R. Eggers** of Crawfordsville has been appointed medical director of the Ben Hur Life Association; he also was named to its board of directors.

. . . **Dr. Arthur C. Rettig** of Indianapolis, a marathon runner specializing in sports injuries, addressed the September meeting of the Runners Forum Road Runners Club.



$200 a day, and you can't even get a drink of water!

. . . **Dr. E. Larry Knight** of Elkhart discussed "Stroke and Diabetes" at the September meeting of the Elkhart Area Stroke Club.

. . . **Dr. John R. Wagoner** of Anderson was the guest speaker at graduation exercises for the 14th class of the Anderson School of Practical Nursing.

. . . **Dr. John R. Stanley** of Muncie has been elected chairman of the Indiana chapter, American College of Obstetricians and Gynecologists.

. . . **Dr. Servando N. Pesarillo** of Kokomo has been named a fellow of the American Academy of Family Physicians.

. . . **Dr. R. Daniel Grossman,** a Bloomington ophthalmologist, discussed diabetes and eye changes during the September meeting of the American Diabetic Association in Bloomington.

. . . **Dr. John R. Crise** has been named medical director of Porter Memorial Hospital's Portage Convenience Center.

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NEWS NOTES

Here and There . . .

. . . **Dr. Robert C. Beeson** of Anderson, a bicycle racing buff, rode 540 miles in the annual Labor Day "Bicycle Across Missouri" race. He won the race with a time of 30 hours, 9 minutes, beating the old record for the race by three hours.

. . . **Dr. James M. Fink** of South Bend recently presented a series of lectures on coronary artery disease. He is medical director of the cardiac rehabilitation program at St. Joseph's Medical Center, South Bend.

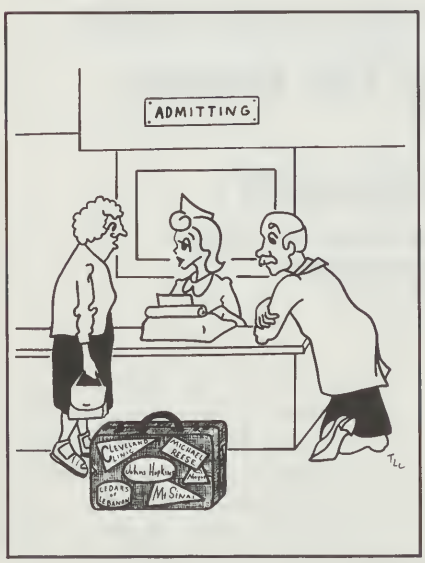
. . . **Dr. Neil J. Stalker,** a Peru pediatrician, recently conducted a series of classes on infant care for parents.

. . . **Dr. Joseph J. Zore** and **Dr. Robert J. Warren,** Richmond pediatricians, recently conducted another in their series of programs called "Ask the Pediatrician."

. . . **Dr. Dennis J. Nicholas,** an Indianapolis anesthesiologist, has been appointed to the National Advisory Council, National Health Service Corps, HHS.

. . . **Dr. Mark Wisen,** a Bloomington neurologist, addressed the Bloomington chapter of the American Lupus Society in September.

. . . **Dr. Charles W. Calhoun** of Seymour discussed diabetes during the September meeting of the Jackson County Chapter, American Diabetes Association.



. . . New members of the American College of Radiology: **Dr. Edward R. Bartley** and **Dr. Gary J. Becker,** Carmel; **Dr. Donald C. Buehner,** Bloomington; **Dr. Eun Yong Kim,** Warsaw; **Dr. Donald S. Schauwecker,** Indianapolis; and **Dr. Daniel W. Whitehead,** Evansville.

. . . **Dr. Mark Singer** of Indianapolis presented "Reconstruction Techniques of Head and Neck Surgery" at the University of Rochester (N.Y.) in September. At a meeting of the Royal College of Surgeons in Quebec City, also in September, he discussed "Total Laryngectomy with Preservation of Voice."

. . . **Dr. John C. Spellmeyer** of Richmond has been elected president of the Indiana Roentgen Society; **Dr. Patrick A. Dolan** of Indianapolis was elected president-elect, **Dr. Robert W. Holden** of Plainfield, secretary, and **Dr. Donald R. Sugarman** of Fort Wayne, treasurer.

Fire Safety Videotapes

The National Fire Protection Association announces the release of two new videotape productions covering important fire safety information for health care facilities.

"Know Your Sprinkler System" deals with maintenance of sprinkler systems. "Safe Handling of Medical Gases" explains the fire hazards associated with storage and handling of gases used in health facilities.

All videotape formats of both tapes are available on purchase for $250. Write the NFPA at Batterymarch Park, Quincy, Mass. 02269.

Nutrition Abstracts

Mead Johnson Nutritional Division is publishing abstracts of proceedings of a symposium, "Metabolic and Nutrition Support for Trauma and Burn Patients," held July 17, 1982. The consensus of the participants was that nutritional support is as important as wound care, and that the key to successful nutrition of burn and trauma patients is emphasis on high protein needs during the early, catabolic phase after trauma.

For a copy of the abstracts, write Mead Johnson Nutritional Division, Dept. 68, Evansville, Ind. 47721.

. . . **Dr. Eric L. Dyer** of Bedford will begin a two-year fellowship in pulmonary medicine at Vanderbilt University School of Medicine, Nashville, Tenn.

Immunology Videotape

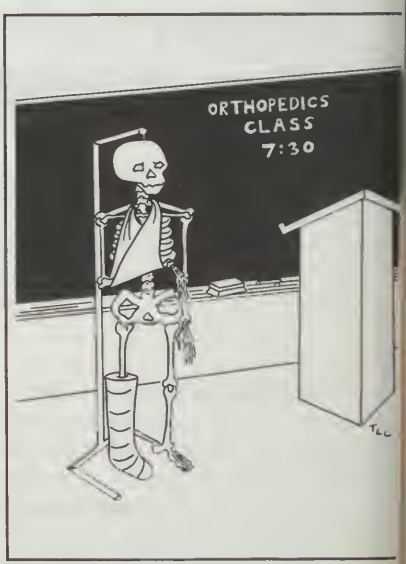
The American Society of Clinical Pathologists has a 30-minute color videotape on "Cellular Immunity and Immune Deficiency Diseases." It covers basic concepts of cellular immunity as well as laboratory methods and approaches to the phenomenon of cellular immunity. It is ideal for residency training or CME for pathologists and all physicians interested in immune reactions.

The videotape may be purchased for $275 or rented at $60 per month. For full description or for ordering write the Society at P.O. Box 12073, Chicago 60612, or call toll-free 800-621-4142.

Medical Practice Booklet

The Bank of America has published a professional management report "Establishing a Medical Practice." The 20-page booklet not only discusses the details and decisions involved in locating and establishing a practice but also outlines many of the business items required such as financing the practice and how to set up a proper financial record of income and expenses.

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References:

1. Hart FD, Huskisson EC, Ansell BM in Hart FD (editor): Drug Treatment of the Rheumatic Diseases, 2nd Ed, Adis Press, Balgo Australia, 1982, p. 30.
2. Rondeau PL, Yeung E, Nelson P: Canad Dent Assoc J 46:433-43
3. Selwyn P and Giles AD: Br Jrl of Clin Practice, Supplement 6, Safe and effective analgesia following dental surgery: A compa of brufen and distalgesic. Pg 87-90. 1980.
4. Taina E: Curr Med Res Opinion, 7:423-428, 1981.

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WARNINGS: Anaphylactoid reactions have occurred in patients hypersensitive to aspirin (see CONTRAINDICATIONS). Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Pe ulceration, perforation, or gastrointestinal bleeding can end fatally, however, an association has not been established. Rufen should be given under close supervision to patients with a history of upper gastro-intestinal tract disease, and only after consulting the ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be attempted. If Rufen must be given, the patient should be under close supervision for signs of u perforation or gastrointestinal bleeding.

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Fluid retention and edema have been associated with Rufen; caution should be used in patients with a history of cardiac decompensation.

Rufen can inhibit platelet aggregation and prolong bleeding time. Use with caution in patients with intrinsic coagulation defects and those taking anticoagulants.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy, this therapy should be tapered slowly when adding Rufen.

DRUG INTERACTION: *Coumarin-type anticoagulants.* The physician should be cautious when administering Rufen to patients on anticoagulants.

Aspirin. Concomitant use may decrease Rufen blood levels.

PREGNANCY AND NURSING MOTHERS: Rufen should not be taken during pregnancy nor by nursing mothers.

ADVERSE REACTIONS: Incidence greater than 1%. Gastrointestinal: The most frequent adverse reaction is gastrointestinal (4 to 16%). Includes nausea*, epigastric pain*, heartburn*, diarrhea, abdominal dis nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence). Central Nervous System: dizziness*, headache, nervousness. Dermatologic: rash* (including maculopapular type), pruritus. Special Senses: tinnitus. Metabolic: decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS *Incidence 3% to 9%.

Incidence less than 1 in 100. Gastrointestinal: gastric or duodenal ulcer with bleeding and/or perforation, hemorrhage, melena. Central Nervous System: depression, insomnia, confusion, emotional lability, sor nolence, aseptic meningitis with fever and coma. Dermatologic: vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome and alopecia. *Special Senses:* hearing loss, amblyopia (blurred and/or diminished vision, scotomata and/or changes in color vision) [see PRECAUTIONS]. Hematologic: neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive thrombocytopenia with or without purpura eosinophilia, decreases in hemoglobin and hematocrit. Cardiovascular: congestive heart failure in patients with marginal cardiac function, elevated blood pressure. All syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasms (see CONTRAINDICATIONS). Renal: acute renal failure in patients with preexisting significantly impaired renal func decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria. Miscellaneous: dry eyes and mouth, gingival ulcers, rhinitis.

Causal relationship unknown. Gastrointestinal: pancreatitis. Central Nervous System: paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri. Dermatologic: toxic epidermal necrolysis, photo-allergic skin reactions. Special Senses: conjunctivitis, diplopia, optic neuritis. Hematologic: bleeding episodes. Allergic: serum sickness, lupus erythematosus syndrome, Henoch-Schonlein vasculitis. Endocri gynecomastia, hypoglycemia. Cardiovascular: arrhythmias (sinus tachycardia, bradycardia, and palpitations). Renal: renal papillary necrosis.

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The Rising Cost of Hospital Care Producing Concern Among Indiana Residents

Results of Indiana Hospital Association Survey



JOANNE DRING
Public Affairs
Indiana Hospital Assn.

RESIDENTS OF INDIANA are, for the most part, satisfied with the quality and accessibility of hospital care in Indiana, but the rising cost is producing nearly the same level of concern as inflation and crime, two problems the public would obviously like to see controlled. These findings are from a public attitude survey conducted by Selection Research, Inc., an independent market research firm, for the Indiana Hospital Association.

IHA probed the opinions of 460 heads of household who were selected randomly by computer to comprise a sample representative of the state as a whole.

Ninety-three per cent of those questioned say there is a hospital close enough to meet their needs and 82% believe they are being effectively served by hospitals. Eighty-one per cent say their hospital service is either "excellent" or "good," with one-third ranking care as excellent. By comparison, a recent *New York Times* national survey found that 74% of the 1,530 respondents are "satisfied" with the quality of hospital care in their communities.

Concern over the rising cost of care is as serious in Indiana as in the rest of the nation, if not more so. In a list of eight essential goods and services, after new homes, hospital care was said to be the highest priced item for the value received. Third highest-priced was automobile transportation, fourth utilities, fifth taxes. Physician fees and college educations tied for sixth and food came in last, meaning it was considered a better value than the other items. However, the public ranked all eight items as "extremely high." Individuals who were hospitalized within the past year were more apt to rate hospital costs "extremely high."

The survey confirmed that persons who pay for their own health insurance benefits visit hospitals less than those with group or employer-paid insurance plans. One-fourth of the entire sample said they had delayed going to a hospital

TABLE 1
Per Cent of General Public in Indiana Who Favor Cost Cutting Options

Option	Per Cent in Favor
Promoting healthier lifestyles to reduce the need for health care	86%
Having patients return home the same day they have simple operations	69
Limiting certain specialty services to fewer hospitals	42
Increasing the regulation of hospitals	39
Reducing some basic hospital services at smaller hospitals, offering them only at larger hospitals	34
Reducing the number of patient beds in local hospitals	18
Having patients pay a greater share of the hospital bill	18
Reducing the number of hospitals in Indiana	7

Correspondence: Indiana Hospital Association, 3921 N. Meridian St., Indianapolis, Ind. 46208.

TABLE 2

Opinion Leader Response on Factors They Believe Contribute to Rising Health Care Costs

FACTOR	First Response (n=200)	Second Response (n=54)	Total Responses (n=200)
Increased Labor Costs	15%	7%	17%
Unnecessary Patient Use	7	11	10
Unnecessary Physician Use	7	4	8
Increased Technology	6	6	7.5
Poor Insurance Scrutiny	6	4	7
Government Regulation	6	6	7.5
Poor Hospital Management	6	2	6.5
Equipment Purchases	5	11	8
Abuse of Welfare	4	9	6.5
Malpractice Suits	4	2	4.5
Insurance	4	6	5.5
Duplication of Services/Equipment	3	4	4
Public Demands	3	2	3.5
Construction/Expansion	2	11	5
Too Many Hospital Beds	1	0	1
Various Other	16	17	20.5
Don't Know	9	0	9

TABLE 3

Opinion Leader Ratings of Various Methods of Making Health Care More Efficient and Slowing the Rise in Hospital Costs

METHODS	Very Effective	Somewhat Effective	Not Effective	Don't Know	Average Score
Increase business involvement in health care planning	38%	43%	14%	5%	2.25
Increase deductible amounts on patient health insurance policies	24	49	22	6	2.02
Provide choices to employees of varying levels of insurance coverage on group plans	23	47	25	6	1.98
Increase competition among hospitals	24	38	33	6	1.91
Reduce some basic hospital services and offer them only at a larger hospital	19	41	37	4	1.81
More prepaid health plans (HMOs)	13	32	45	11	1.64
Reduce the number of hospital beds	9	21	63	9	1.41
Regulate hospitals like public utilities	7	23	66	5	1.38
Increased government regulations	2	11	86	2	1.45

or emergency room when they felt they needed medical attention, and of those who delayed, most said it was because of cost, indicating that one in nine Hoosiers may be delaying care over fear of the cost.

Government-Financed Care

Fewer Hoosiers favor health insurance schemes funded by the federal government than the nation as a whole (40% in Indiana vs. 48% on the *New York Times* survey), but a growing number of Hoosiers who opposed NHI four years ago now say they "don't know" whether they would support or oppose it.

The IHA survey revealed a tendency to oppose NHI as people get older and as their incomes increase. Longer-term residents and those who were hospitalized recently also tended to oppose NHI.

Forty-four per cent of the respondents believe that the quality of care would worsen under NHI, but 49% said it would be about the same or better. As to costs under NHI, 45% believe costs would be higher, but 22% expect lower costs and 24% about the same costs.

Respondents were asked to give their opinions of various options for dealing with rising health care costs *(Table 1)*. The idea with the most appeal was promotion of healthier lifestyles to reduce the need for care, and outpatient surgery was the second most accepted idea. The least preferred method was a reduction in the number of hospitals in Indiana. One in five favors having patients pay a greater share of the hospital bill if costs would be reduced overall, and nearly 40% favored increased regulation of hospitals.

Who's Concerned About Rising Costs?

Physicians and hospital management are viewed as the groups least concerned about rising costs, while the public sees themselves and insurance executives as the most concerned. Government officials also were said to be more concerned than health care providers.

Hoosiers say they are doing a better

job of taking care of their own health through regular exercise programs, smoking cessation and weight control. Fifty-five per cent believe that all people in Indiana are taking better care of their health than five years ago, and 60% reported that they, personally, are doing so. Weight control is practiced by 61% of the respondents, regular exercise by 52% and 63% seldom if ever smoke cigarettes. Only 20%, however, reported that they regularly fasten their seat belts.

Opinion Leader Response

IHA also conducted a companion survey of 200 opinion leaders in the state to determine the views of legislators, business and professional leaders, and news media representatives about major issues confronting the health care field.

While opinion leaders held a slightly more moderate view of health care costs than the general public, they ranked hospital care and physician fees as the two worst bargains among the list of eight essential goods and services.

When asked their opinions on the reasons for rising costs, nearly one-third of opinion leader respondents cited factors attributable to abuse within the health care system, such as unnecessary patient or physician use, abuse of welfare, poor insurance scrutiny, or poor hospital management *(Table 2)*. Public demand was cited in only 3.5% of the answers.

Opinion leaders believe the most effective means for slowing the rise of hospital costs is to increase business' involvement in health care planning and to increase deductible amounts on patient health insurance policies *(Table 3)*.

They agreed with the general public on the issue of illness prevention, with 68% saying that more emphasis should be placed on prevention even if it increases costs. Fewer (52%) favored having employers finance, as a tax-free employee benefit, a health education program to improve health.

On the issue of health care competition, 64% of opinion leader respondents believe hospitals should advertise prices and services. Sixty per cent favored having employers offer employees a choice of several health insurance benefit packages, and 50% favor business monitoring employee use of hospital services. Only 18% supported limiting the amount of health insurance benefits that are tax deductible.

Both surveys gave strong indications to health care providers that the rise of health care costs is unacceptable and that providers are not believed to be as concerned as others in reining in costs.

These attitudes are reflected in the growing number of business/industry coalitions in Indiana, attempting to slow the rise of insurance premium costs to employers.

One positive element throughout the surveys was that respondents aware of the Voluntary Effort to Contain Health Care Costs were less critical of cost increases. However, visible and serious cost containment activities must be undertaken if deeply entrenched public concern over rising health care costs in Indiana is to be reduced.

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IMMEDIATE OPENING for full-time Indiana-licensed physician in training center for mentally retarded. Excellent fringe benefits. Forty-hour week; rotate night and weekend call, compensated by time off. Contact Mrs. R. J. Zachrich, Employment Manager, Fort Wayne State Hospital and Training Center, 4900 St. Joe Road, Fort Wayne, Ind. 46815. Tel: (219) 485-7554.

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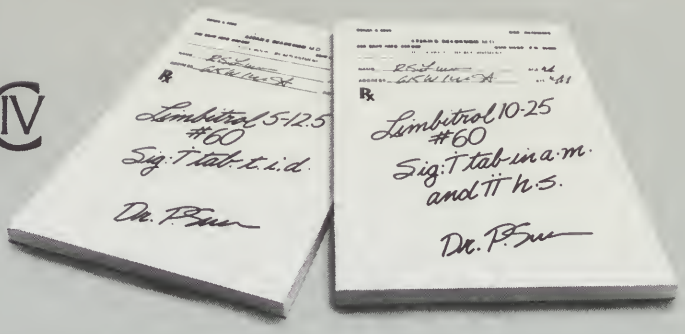
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Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)



In anxious depression,

SPECIFIC FOR THE NONPSYCHOTIC PATIENT

Fits the picture of anxiety/depression correlation

Most patients with a mood disorder have a mixture of anxiety and depression. One clinician[1] found a correlation of 0.7 in anxiety and depression scores; another[2] has estimated that 7 of 10 nonpsychotic depressed patients are also anxious. For the dual symptomatology of anxious depression, Limbitrol provides dual medication.

More appropriate for the nonpsychotic depressed and anxious patient

Limbitrol contains both amitriptyline, specific for symptoms of depression, and a benzodiazepine, specific for the symptoms of anxiety. Thus it is a better choice than other dual agents for anxious depression that contain a phenothiazine, a class of antipsychotic drugs less specific for anxiety and now generally avoided in nonpsychotic patients.[2,3]

Avoids the risk of tardive dyskinesia carried by the phenothiazine combinations

The causal relationship between the phenothiazines and other extrapyramidal side effects, including tardive dyskinesia, is well established. In contrast, the reported incidence of these adverse reactions with Limbitrol or either of its components is rare.

References: 1. Clagharn J: *Psychosomatics 11*:438-441, Sept-Oct 1970. **2.** Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine,* edited by Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. **3.** Baldessarini RJ, Tarsy D: Tardive dyskinesia, in *Psychopharmacology: A Generation of Progress,* edited by Lipton MA, DiMascio A, Killam KF. New York, Raven Press, 1978, p. 999.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then increase cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated: sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

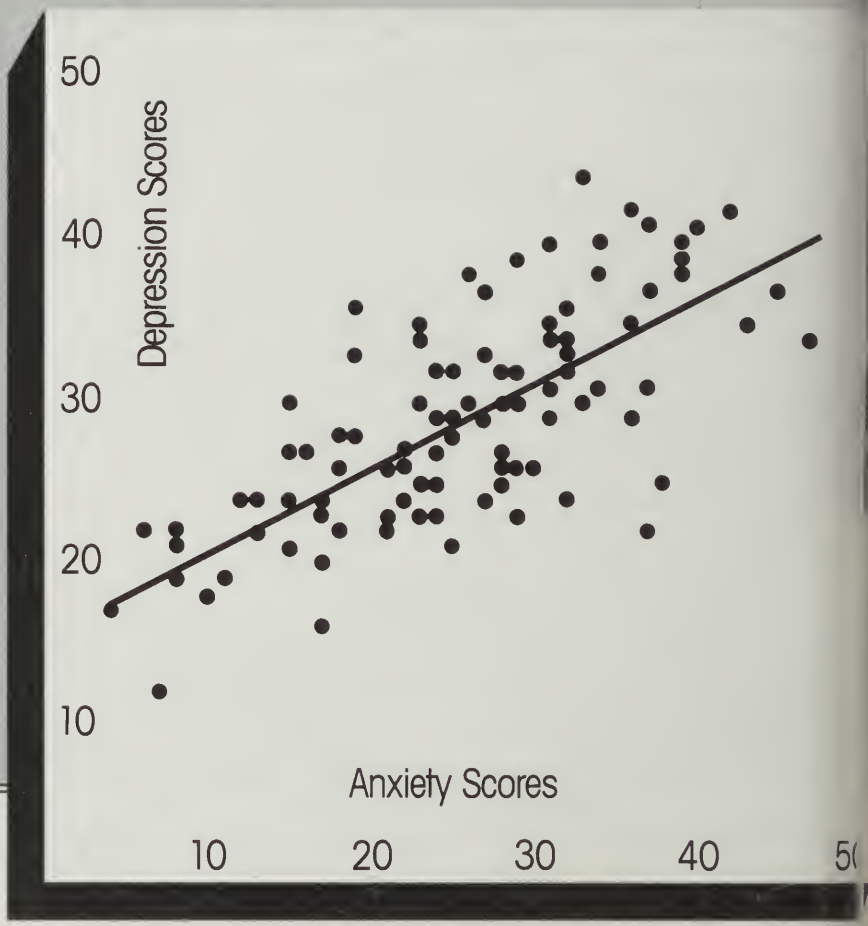
How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.

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MORE DEPRESSION MEANS MORE ANXIETY...

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The graph illustrates the close correlation between depression and anxiety derived through the MMPI and the Taylor Manifest Anxiety Scale in 100 nonpsychotic psychiatric patients. The Coefficient of Correlation is 0.7. As depression increased, so did the anxiety levels.
—Adapted from Claghorn J[1]

A key reason why

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Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
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1. Claghorn J: *Psychosomatics 11*:438-441, Sept-C 970

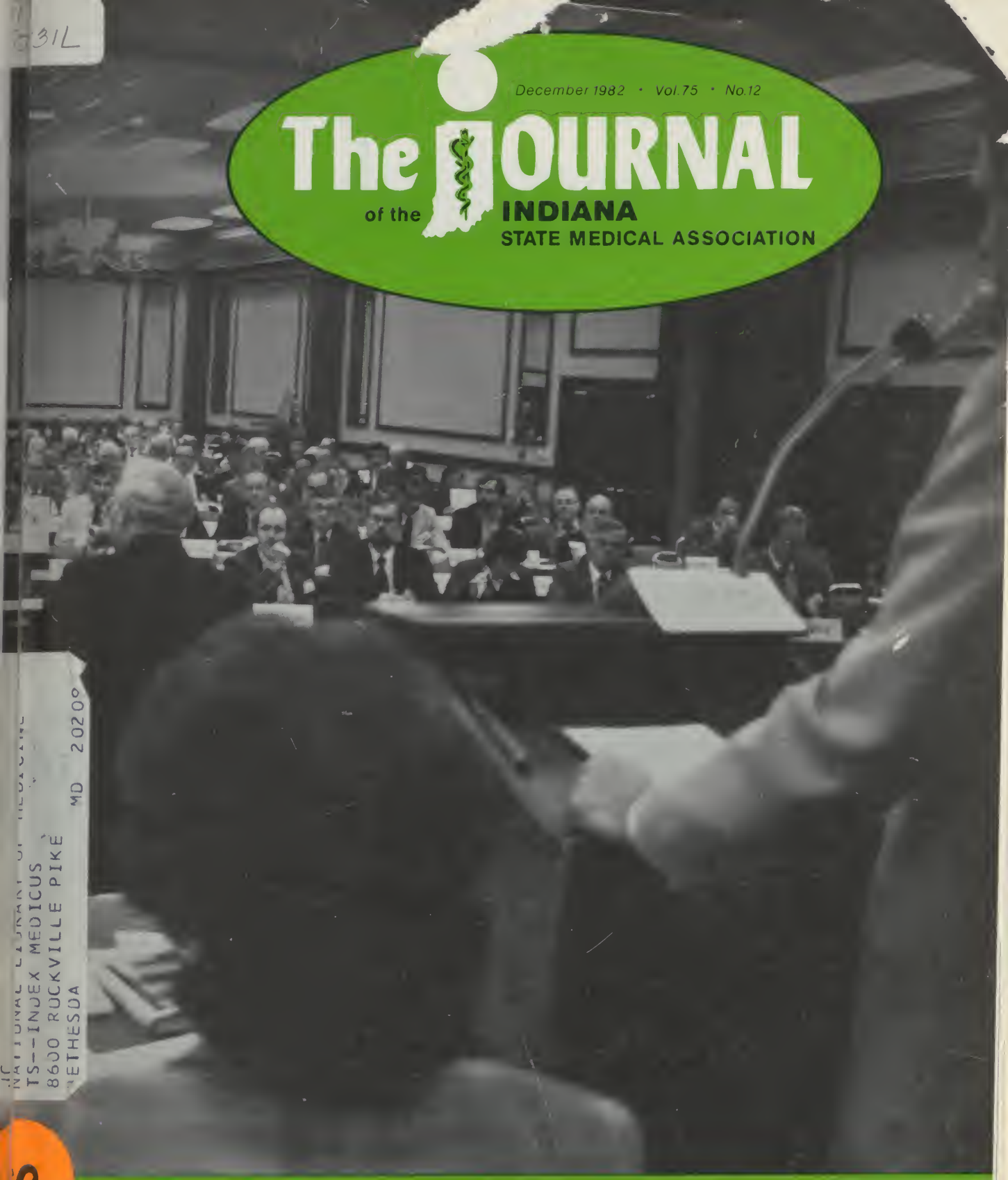
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ISMA'S Annual Convention

Wrap-up begins on page 900

An added complication... in the treatment of bacterial bronchitis



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor
Pulvules®, 250 and 500 mg

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coomb testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

As with other broad-spectrum antibiotics, colitis, including rare instances of pseudomembranous colitis, has been reported in conjunction with therapy with Ceclor.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in Pruritus, urticaria, and positive Coombs tests each occur in than 1 in 200 patients. Cases of serum-sickness-like reacti (erythema multiforme or the above skin manifestations accon by arthritis/arthralgia and, frequently, fever) have been repo These reactions are apparently due to hypersensitivity and usually occurred during or following a second course of the with Ceclor® (cefaclor). Such reactions have been reported frequently in children than in adults. Signs and symptoms u occur a few days after initiation of therapy and subside wit few days after cessation of therapy. No serious sequelae h been reported. Antihistamines and corticosteroids appear t enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which o occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosi (1 in 50 patients) and genital pruritus or vaginitis (less than 100 patients).

Causal Relationship Uncertain—Transitory abnormalities clinical laboratory test results have been reported. Althoug were of uncertain etiology, they are listed below to serve as information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte cou predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (le 1 in 500) or abnormal urinalysis (less than 1 in 200).

*Many authorities attribute acute infectious exacerbation o chronic bronchitis to either *S. pneumoniae* or *H. influenza*

Note: Ceclor is contraindicated in patients with known all the cephalosporins and should be given cautiously to peni allergic patients.

Penicillin is the usual drug of choice in the treatment a prevention of streptococcal infections, including the propl of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., *8*:91, 1975.
2. Antimicrob. Agents Chemother., *11*:470, 1977.
3. Antimicrob. Agents Chemother., *13*:584, 1978.
4. Antimicrob. Agents Chemother., *12*:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II:880. Washington, D.C.: American Society f Microbiology, 1978.
6. Antimicrob. Agents Chemother., *13*:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited b G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 4 New York: John Wiley & Sons, 1979.

Additional information avail the profession on request fr Eli Lilly and Company, Indianapolis, Indiana 46285

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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis

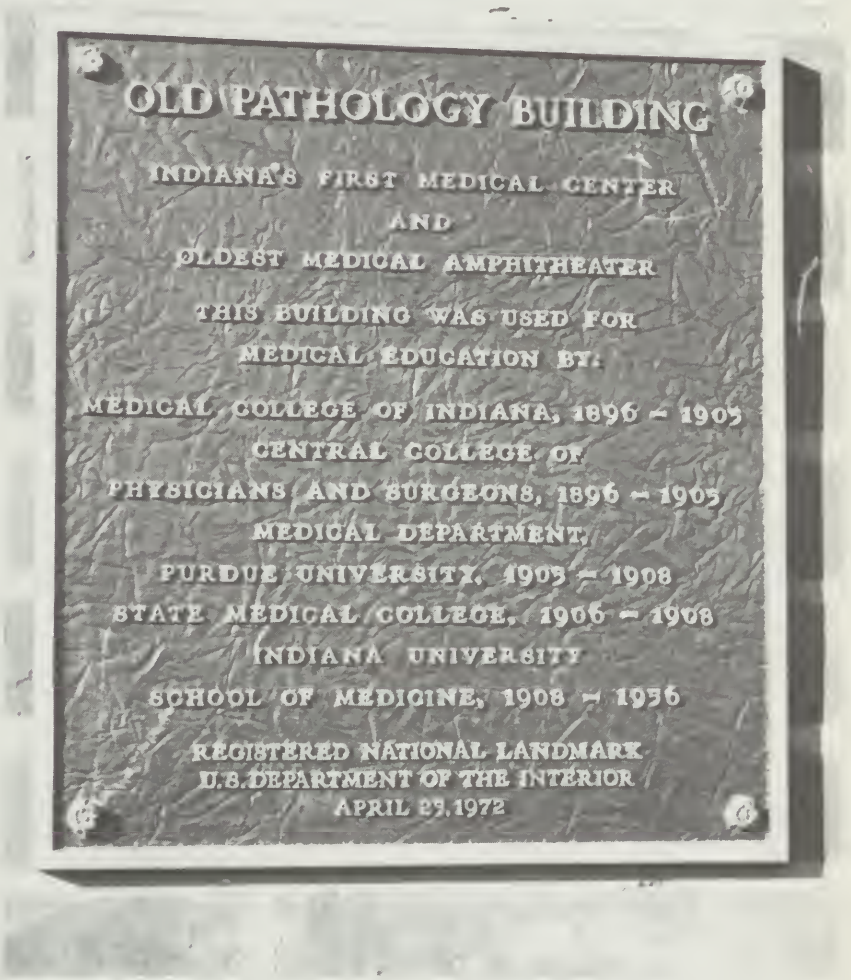
THIS PAGE OF NOTES presents a succinct outline of the activities of the Indiana Medical History Society IMHS) since its origin 13 years ago. This is in response to a request from ISMA's Medical History Committee at the October Convention Meeting, who noted that, although most ISMA members belong to the IMHS by virtue of their voluntary contribution to the Museum when paying their annual dues, few are actually aware of the background or scope of the Society's activities. These activities have been reported from time to time in the pages of this Journal over the years, but this page of Notes has never been used to describe the overall endeavor.

The Society (originally designated as Foundation) was incorporated in 1969 as a not-for-profit organization. The designation recently was changed by the IRS to *charitable trust.*

On a long-term basis, the purpose of the Society is to promote the collection, preservation, and scholarly utilization of the documents, books, artifacts, tools, and memorabilia of health and health care and education in Indiana.

To the present, the following have been achieved by the IMHS in pursuit of this purpose:

1. The Old Pathology Building, on the grounds of Central State Hospital, has been saved
   (a) by action of the Governor of Indiana
   (b) by being listed on the Historic American Building Inventory Survey
   (c) by being accepted by the U.S Department of Interior's National Register of Historic Places. The building, itself a museum piece, is currently being developed into a Museum of Indiana Medical History.
2. The position of curator and Indiana Medical Historian has been created and funded jointly by the Indiana Historical Society (IHS) and IMHS. (Filled by Katherine Mandusic McDonell, M.A.).
3. A chair for the history of medicine has been established at Bloomington, funded jointly by I.U. and the IHS. (Filled by Ann Carmichael, M.D., Ph.D.).
4. The Indiana Medical History Quarterly (now in its ninth year) has been established and published by the IHS. The chairman of the IMHS is editor, assisted by Dr. Carmichael and Mrs. McDonell.
5. An Indiana Medical History Section has been established by the IHS in the Society's library in the State Library Building, and has provided funds for its development. (This pertains to journals, publications, and documents of the 18th and early 19th century—to date a neglected area).



The minimal essentials for preserving and utilizing the State's medical history and heritage are now in place. It is to be emphasized, however, that this is just a beginning, and that long-term achievement requires sustained interest and support of the ISMA.

The development of this project to this point has been possible only through the remarkable cooperation given by Indiana University at Bloomington, the Indiana University School of Medicine at Indianapolis, the Indiana Historical Society, the Indiana State Medical Association, and the Indiana Department of Mental Health.



ISMA Welcomes Its 140th President

John A. Knote, M.D.

President
Indiana State Medical Association
1982-1983

Dr. John A. Knote, Lafayette, accepted the presidency of the Indiana State Medical Association Oct. 18, during the final session of the House of Delegates at the 133rd annual convention of the ISMA. He succeeded Dr. Martin J. O'Neill, Valparaiso.

A board-certified radiologist, Dr. Knote has a sub-specialty board certification in nuclear medicine. He received a B.P.E. degree from Purdue University in 1959 and his Doctor of Medicine degree from Indiana University School of Medicine in 1964. He served a rotating internship at Baptists Memorial Hospital in Memphis, Tenn., and his residency in general radiology at I.U. Medical Center. Dr. Knote was certified by the American Board of Radiology in 1971 and the American Board of Nuclear Medicine in 1974.

Dr. Knote opened his practice in diagnostic radiology and nuclear medicine in Fort Wayne in 1968, and moved his practice to Lafayette in 1970. He is the coordinator of the nuclear medicine section at Home Hospital and is supervising radiologist at Purdue University Student Hospital.

He is a member of the Tippecanoe County Medical Society and Ninth District Medical Society, both of which he has served as president. He is also a member of the American College of Radiology, Indiana Roentgen Society, Radiologic Society of North America, Society of Nuclear Medicine, and is a life member of the Lafayette Home Hospital Association.

On the ISMA Board of Trustees from 1976 to 1981, Dr. Knote served as chairman of the Board from October 1979 to October 1981. He has also served as a member of the ISMA Executive Committee.

Some of the other professional positions Dr. Knote has held or still holds include: member, Ad Hoc Committee to Establish Criteria for Computed Tomographic Units in Indiana; president, Indiana Roentgen Society; member, Indiana State Board of Health, technical advisory committee for Computed Tomography, sub-area 4 Central Indiana Health Systems Agency; Indiana University Alumni Council; and member, ISMA Commission on Legislation, 1975-80, serving as chairman for one year.

Dr. Knote also served three years on the board of directors of the Lafayette Y.M.C.A. and Boys' Club, and has served on the Presidents' Council of Purdue University.

He resides with his wife Jan and their three children in West Lafayette.

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ABOUT THE COVER

W. J. Lewis, M.D., AMA trustee (from Ohio), addresses ISMA's 1982 House of Delegates. In the foreground are Dr. Lawrence E. Allen, speaker, and Dr. Shirley T. Khalouf, vice-speaker. More convention photos begin on page 900; election results, page 907; resolutions, page 950.

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WHAT'S NEW?

News of what is new in the medical supply industry is composed of abstracts from news releases by book publishers and manufacturers of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

The 3M Company announces a new antimicrobial tape closure that helps control skin bacteria. "The Closure with Clout," a brochure that describes the closures, may be obtained, free, by writing 3M at Box 33600, St. Paul, Minn. 55133. The closure's germicidal iodophor complex is active against a full range of pathogens for 72 hours after application to skin.

The Inspiron Respiratory Division of C. R. Bard, Inc. has introduced a Model 7500 Oxygen Concentrator. It is compact, lightweight and easily carried. It operates quietly while producing high oxygen concentrations in the 1-3 liter flow range.

Abbott Laboratories has a new gonorrhea diagnostic test that increases the speed of detecting cervical and urethral gonorrhea as well as reduced false-negative results. It detects both viable and nonviable gonococcal bacteria. Results may be obtained in as little as one hour. Cultures require 48 to 72 hours. The test, named Gonozyme®, is an enzyme immunoassay.

The 3M Company has a new cast saw blade for removal of Scotchcast or plaster casts. The blade teeth stay sharper longer and are wide enough to create a wider cut, which makes introduction of the cast spreader easier. The blade is 2½ inches in diameter and fits standard cast saws.



It's normal for a woman your age—whatever that is.

General Electric announces a handheld calculator which obstetricians may use in their offices as a pregnancy management aid. It computes obstetrical data needed from ultrasound examinations. It computes gestational age by biparietal diameter, femur length, crown-rump length, abdominal circumference and last menstrual period. It also provides a hard copy of each calculation and performs standard mathematical functions.

Hana Biologics is introducing a rapid diagnostic test kit for fetal lung maturity. Amniostat-FLM™ detects the presence of phosphatidylglycerol (PG), a major surfactant phospholipid released into the amniotic fluid by the developing lungs of the fetus. Studies have shown that the presence of PG in amniotic fluid is a reliable and positive indicator of FLM.

The 3M Company has a new surgical incise drape called 3M Ioban 2 Antimicrobial Film. It incorporates a fast-acting iodophor in the drape's adhesive. Clinical research shows that a one-minute alcohol cleansing with 70% isopropylalcohol, followed by application of the Ioban 2 film, is as effective as a five-minute iodophor scrub, followed by an iodophor paint. Ioban 2 film is conformable and "breathes," helping to insure long-term adhesion.

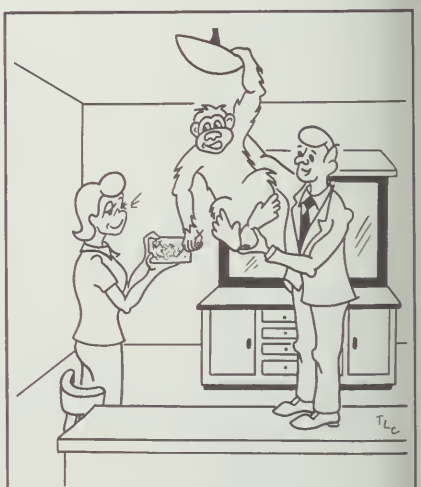
Bristol Laboratories announces a new codeine combination analgesic, BUFFERIN® with Codein #3. Recommended for relief of minor to medium discomfort after surgical or dental procedures, arthritic disorders and traumatic injuries.

Abbott Laboratories is introducing HAVAB EIA, the first commercially available enzyme immunoassay (EIA) for the detection of total IgG and IgM antibodies to hepatitis A virus in serum or plasma, thus assessing the immune status of patients who may be at risk of developing hepatitis A.

The Trileen Corporation introduces a new line of showerlets for patients who require specialized perineal care in hospitals, nursing homes and private residences. The AB300 Series® Showerlet is a self-contained, contoured toilet seat that incorporates the cleansing functions of a sitz bath or bidet. Included is a water warming device, and an optional feature is a heated toilet seat.

The 3M Company has a small disposable skin stapler that dispenses one staple. It is designed for office and emergency-room use. The small staplers enable surgeons to control placement and depth of the staples. The staples minimize cross-hatching and produce superior cosmetic results. Its name is Precise brand One-Shot.

Marquis Professional Publications has published *Sourcebook on Death and Dying,* a selection of articles by experts in social work, medicine, psychology and other disciplines to help family, bereavement professionals and others deal with an advanced terminal case and death. 788 pages.



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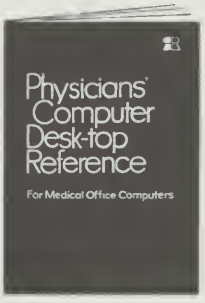
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Psychiatric Testimony

Guest Editorial

STEPHEN D. WARD, M.D.
Editor
West Virginia Medical Journal

SO PSYCHIATRISTS are at it again, disagreeing with one another in a sensational court case. "Isn't it shameful the way psychiatrists can be found to testify in disputes on whatever side is willing to put up the money?" Cluck, cluck, cluck go the tongues.

"Everyone knows that Surgeons and Internists never disagree among themselves, with one another or with Family Practitioners—what's that? How do malpractice suits manage to persist? Well, everyone knows there is a difference between discussing the technical details of a scientific pursuit and just arguing about some foolish esoteric point like whether someone is crazy or not . . ."

So goes the discussion in regard to the Hinckley verdict, within the profession and without. It seems that everyone starts out by assuming the fault lies with Medicine, in this case represented by Psychiatry.

But let's examine things just a bit. Is it really in any way remarkable that physicians can be found to testify on opposite sides in almost any diagnostic or therapeutic medical problem? Not in the least. The day there is no possibility of dispute will be the day we can all be replaced by a bank of computers backed up by a cadre of champanzees trained to perform rote surgical procedures.

What, then, is wrong with the way The Law handles cases typified by the Hinckley assassination attempt wherein mental competence is made an issue? The answer to that is suggested in the question itself. It is The Law which is at fault, not those who are asked to testify in the proceedings. In an imperfect state of knowledge on any subject disputants can always be found.

What is wrong is that in The Law it *does* make a difference whether or not someone was competent when he committed a criminal act. Somehow The Law has lost sight of the fact that the reason we have law number one is that the group decided that some awful thing should not be allowed to happen again. Law was invented to protect victims and potential victims, and once it stops doing that the group has no use for and thus no respect for The Law.

"Yes, but what about the constitutional rights of the individual," choruses up the response. Well, let's look at those rights. Is not each individual, among other things, a part of the general public? And who is it that will maintain that individual rights necessarily must be in conflict with the rights of the public?

It is quite possible that the rights of an individual can be maintained without granting that individual a license to break laws through finding him mentally ill.

A very wise superintendent of a state mental hospital once maintained, "Mental illness is no excuse for poor manners." Nor is it an excuse for lawlessness of any kind.

The Law itself seems to lack the sophistication to perceive the fact that mental illness of the type talked about in the Hinckley case is fairly tightly compartmentalized. This is the one observation consistently made by students of what we call schizophrenia over the centuries. It is possible to have extremely unusual ideas or attitudes on certain subjects but to be totally commonplace and unremarkable in ideas and attitudes on most other subjects.

Mentally ill people every day go about our cities obeying traffic laws, observing civilized amenities, paying their taxes and otherwise keeping the peace. It is possible and, in fact, no more difficult for them to do this than for anyone else. They should be expected and required to be as law abiding as anyone else.

Free speech and other nonviolent protests or acts of civil disobedience can be allowed to the mentally ill as individuals or as groups of individuals in the same way these rights are bestowed on the putatively "normal" citizens given to promoting a variety of unusual causes in sometimes bizarre ways. The Law, however, must speak more loudly than those other voices in remote recesses of the head when they encourage lawlessness.

No matter the course taken by The Law to correct its own foolishness, physicians can be expected to stand up, argue, dispute with and criticize one another in any forum provided by The Law, by Medicine, or even, just by chance.

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There are three new videotapes which I highly recommend for use in continuing medical education activities:

• Cat. #84-047-2-13-09, **"Endometrial Carcinoma: Pathologic Factors in Assessing Biologic Behavior"** (34 minutes, 1976) with Alan B.P. Ng, M.D., Professor of Pathology and Obstetrics and Gynecology, and Director of Surgical Pathology and Cytology, University of Miami School of Medicine; and James W. Reagan, M.D., Professor of Pathology and Reproductive Biology, and Director of Surgical Pathology and Cytology, Case Western Reserve University.

The videotape is part of a complete package for continuing education including a videocassette, a program monograph, a post-test (for C.M.E. credit), an answer sheet and 35mm slides for post-test review. The videocassette includes numerous pathology slides of very high quality.

The videotape demonstrates the various forms of endometrial carcinoma and discusses therapeutic regimens and prognoses based on the nature, grade and extent of these lesions. A question-and-answer session on patient management, between a gynecologist and pathologist, is included.

Audience for this videotape includes practicing physicians, oncologists of all categories, residents in pathology and medical students.

The format of the videotape is a ¾-inch U-Matic videocassette, ½-inch BETA I videocassette, ½-inch BETA II videocassette or a ½-inch VHS videocassette.

To order this videocassette send your name, address and check for $60 rental per month or $275 purchase price to American Society of Clinical Pathologists, Education Projects Division, 2100 W. Harrison St., Chicago 60612, Attn: Ava Cohn, Marketing Assistant.

The next two videotapes are available through Eli Lilly and Company.

• **"Sexual Adjustment in the Male Cancer Patient"** is a professional program, done in good taste, in which the participants discuss the sexual problems that sometimes follow surgery for cancer, with attention to impotence due to surgery and to dysfunction caused by fear of self-image. In addition to a few drawings, miniature flexible models are used to demonstrate points made (for example, alternate positions which partners may find helpful). Finally, in a counseling session, a female physician-counselor explores problems of a male patient, persuading him tactfully to express his concerns, which the two of them then discuss.

• **"Sexual Adjustment in the Female Cancer Patient"** is similar in style and sequence to the preceding program. Here, attention is given to problems arising from vaginal and related surgery or irradiation, with resultant shortening of the canal and to adhesions and lack of lubrication. Procedures are explained for compensating and for helping to prevent some of the complications. The self-image problems and fears of women who have had surgery or irradiation for breast cancer are discussed. Miniature models are used to demonstrate positions to compensate for specific female complications. A male physician-counselor conducts discussion with a female patient, tactfully probing to get her to verbalize her problems and concerns, which they then discuss.

More advanced professional explorations of similar sexual problems do exist, but the two programs described have the virtue of a visual presentation which should not give offense, and of "role-modeling" designed for professionals giving care and counsel to cancer patients in particular.

These two excellent color motion pictures are each 18 minutes in length and are available in ¾-inch ("U-Matic" video casette or 16 mm film.

Audience for these tapes include physicians, nurses, social workers counselors, etc.

To obtain either of these programs write to: Lilly Education Resources Library, 1430 Broadway, New York, N.Y 10018, Tel: 212-921-2984. You should specify all of the following: program title; preferred date of use (give six weeks advance notice); give two alternate dates, at least one month after the preferred date; give shipping instructions including the name of the person to whose attention it should be sent; and full address.

There is no charge for this service but Eli Lilly's credit title should, of course, be shown at all presentations.

* * *

You might want to mark your calendars with the following meeting dates

Association of Community Cancer Centers Annual Meeting—March 11-13, 1983, Hyatt Regency, Capitol Hill, Washington, D.C. Contact Jane Mortenson, 11600 Nebel St. #201, Rockville, Md., Tel: 301-984-9496.

International Association for Breast Cancer Research—March 20-24, 1983 Hilton Hotel, Denver, Colo. Contact Dr. Marvin Rich, AMC Cancer Research Center, 6401 W. Colfax Ave., Lakewood, Colo. 80214.

Carcinogenesis, Immunology and Transplantation: Environmental Host Factors—April 25-27, 1983, Roswell Park Memorial Institute. Current information on certain aspects of cancer and their inter-relationship with transplantation. Contact Dr. Gerald Murphy, Director, RPMI, 666 Elm St. Buffalo, N.Y. 14263.








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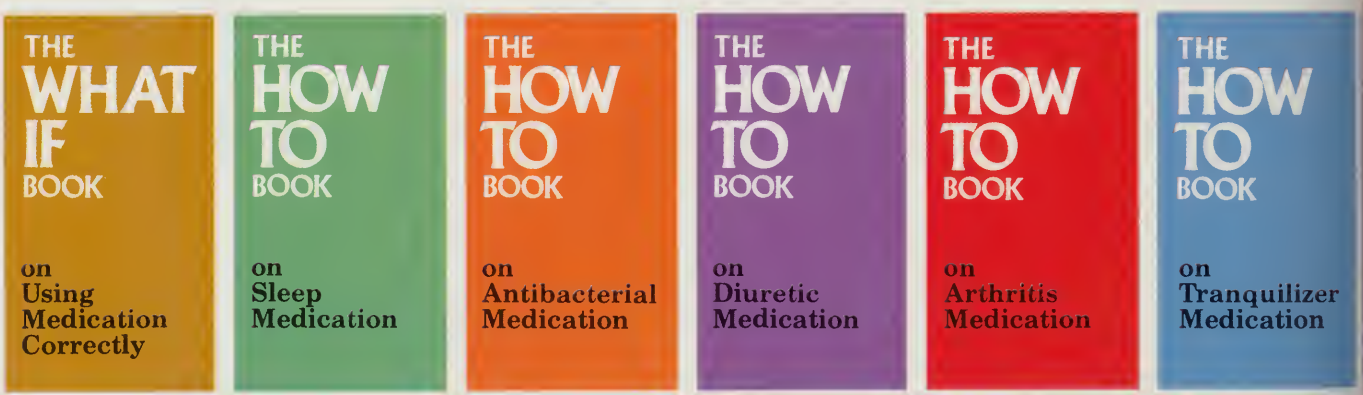
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Can Private Practice of Medicine Survive?

Guest Editorial

JOHN H. BOYLES, JR., M.D.
Dayton, Ohio

TO ME, PRIVATE PRACTICE means a contract between the physician and his patient, involving not only the moral and ethical obligation of the physician to deliver high quality, efficient medical care, but also a financial contract that obligates the patient to pay for such care.

This contract focuses the physician completely on his patient. If the patient is paying the bill, no other party should stand between the physician and his duty to deliver to the patient the best of medical care at the most economical price. This contract also guarantees complete privacy of records concerning the patient and his illness.

This system, free from government controls, traditionally has allowed the patient a free choice of both physician and hospital. As long as the consumer (patient) was paying for the services, he was allowed to choose the amount and type of medical care he desired. With this type of system as in other true competitive economic systems, facilities and manpower truly responded to the marketplace and were not overproduced.

Unfortunately, over the past 25 years the financial obligations of the patient slowly have been removed from the contract of private practice. Since the consumer, therefore, is less and less concerned about the price of the product (health care), cost has risen invariably by ever-increasing amounts.

This escalation of costs is particularly evident in our hospitals. Almost all insurance programs are all-inclusive in their coverage of hospital expenses and therefore have removed the patient completely as a method of fiscal control. Hospitals now compete by offering patients and physicians more elaborate equipment and more beautiful surroundings and ancillary services. This type of competition is, of course, cost generating rather than cost saving.

IN AN EFFORT to assure a 95% or better occupancy, the hospitals will go to any end to increase their attending staffs and make those attending staffs more dependent upon their particular institution. For this reason hospitals wish to build physicians' offices, promote closed staffs, try to make department head choices an administrative duty rather than a staff duty, establish satellite or outpatient clinics using tax-free money to compete with private practitioners, and finally attempt to set up their own closed panel health maintenance organizations or preferred practice associations as now are developing in the Denver area.

Hospitals are not alone in their attempt to destroy the physician-patient relationship, a contract that is the basis of the private practice of medicine. The Blue Shield advance plan promises physicians that their financial world will be improved if they take assignment, and therefore no longer deal financially with their patients. If you stop to analyze this program, it becomes readily apparent that this is yet another blow to the private practice of medicine and will forbid the private practitioner to deal with his patients on an economic basis.

The overexpansion of our hospitals is the final recent development in our medical communities that bodes ill for the future of private practice. The larger the hospitals are, the more ancillary roles they assume in health care delivery. This needless overexpansion will, of course, encourage the hospitals to move into the primary care specialties and again will isolate and restrict the patients' free choice of physician and hospital and the physician's ability to practice in the most cost-efficient manner.

ARE THESE RECENT developments the beginning of the end for the private practice of medicine? If we as physicians do not become more concerned about our profession as a profession, rather than our loyalty to an institution or a specialty, then the private practice of medicine surely will

Dr. Boyles is president of the Mahoning County Medical Society and an otolaryngologist in Dayton, Ohio. Reprinted with permission of *Dayton Medicine*, the *Ohio State Medical Journal*, and the *American Medical News*, Sept. 24, 1982.

perish. We must remind ourselves continually of what is best for our community and our patients, in the long run, and not what is best for our hospitals and physicians. We must remember certain principles and fight to maintain them if we are to prevent overregulation of the health care industry and ultimate lack of quality:

- Any system that takes away from the patient his right to choose freely his physician and hospital should be opposed vigorously.
- Any system that locks in a group of patients to a hospital or list of physicians also should be opposed. This type of system completely destroys true economic competition. In true economic competition any legitimate licensed physician or hospital should be able to compete for a patient's dollar.
- We should encourage our government to end subsidies for hospitals' HMOs, medical students, etc., that contribute to the overproduction of both facilities and manpower.
- We must encourage insurance systems that will return to the true insurance principle. Various systems of copays, deductibles, or prepaid plans should be offered to the consumer so that he may choose the type of care he desires, and full-dollar coverage then will be eliminated totally.
- We must strive to return the hospital to its basic role of caring for the acutely ill. There is no reason for hospitals to be in drug dependency programs, ambulatory care centers, alcohol rehabilitation programs, real estate (physicians' offices), or other activities unrelated to the care of the acutely ill.
- We must encourage our government to stay out of the medical care system of our country. We should urge repeal of professional standards review organizations and health planning laws that have failed so miserably.
- We should reassert ourselves in our hospitals and seek to work in harmony with hospital-based physicians. As medical staff members we should have the responsibility of choosing heads of departments within the hospitals and we should have a voice in future hospital planning. We must remind our chiefs of staff that they are representing the practicing physician in the private practice of medicine and not the hospital.
- We must renew our devotion to the cause of unity to save individual liberty and responsibility.

I hope with all sincerity that the private practice of medicine can survive. If we can return the patient to a status where he again has fiscal responsibility, I think that true competition can prevail. The patient is the only fair and equitable control of the price of medical care. A true competitive marketplace always produces the best product at the least cost.

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Assurance for a Successful Group Practice

Business-Financial Advice for Physicians

DURING THE PAST 12 years a tremendous change has come about in establishing a medical practice. Today, we are seeing almost every medical student and/or resident giving some thought to joining a group practice or a health care facility. Obviously, not all follow that route; however, the doctors who do should give consideration to a number of thoughts and suggestions discussed at this time. Also, existing group practices that are considering hiring new members in the future should review this subject with great thought and care before making any offers to a prospective doctor.

Another area of consideration that comes with being in a group practice is remembering that the bottom line on any decision must be what the group wants. Once a vote has been made on any matter and the vote is of a majority, the matter is closed. Sometimes this causes problems within the group, and the problems become bigger if any member harbors resentment about a decision that is not of their wishes. As a member of a group, people's ideas, philosophies, and objectives change with time; therefore, meetings on a regular basis are necessary. Time must be allotted to clear the air about feelings or to share new ideas. Do not allow bitter feelings or discussions to leave the meetings.

Although group practice has been a way of life for many physicians, it is still important to have responsibilities assigned to all members. Every doctor, from the newly hired associate to the long established group member, needs to understand the business side of a practice as well as accept his share of duties that come from running a group practice.



RONALD R. DICKINSON
Noblesville, Ind.

There are many other items that could be discussed at this time about a group practice. However, if you hire wisely, hold systematic meetings, have specific responsibilities for all, and do not let animosity build within any member, you will have "Assurance for a Successful Group Practice."

One of the most crucial questions a group needs to ask prior to interviewing is, "What is our philosophy about our practice of medicine"? Do all of you in the group have the same opinions abo the care and treatment of patients, t number of hours you feel each doct should work, the value each of you pla on honesty and not harboring resen ment, and any other item that, as group, you have strong convictior about. Once your group has reviewe these items and determined your ph losophies, you are ready to begin seekin the right partner for your group practic Always keep the group's attitudes an goals uppermost in your mind. Re member, attitude problems and ani mosity within the group are by far th biggest concern facing today's unhapp and unsuccessful group practices.

Your interview process should in clude each partner meeting with the nev prospect at least once. Each partne should ask many probing question about goals and objectives as well a philosophy about practicing medicine and about life. You should meet th spouse and discuss a number of th same questions. A future problem ca sometimes be discovered just by havin a dinner with the prospective partne and spouse so you may ask about thei goals and philosophies. One hint t asking these questions: Shut up and lis ten to their answers! A problem I hav observed is that most doctors are sellin the practice and the opportunities s hard they never hear or see the negative that come from the prospective asso ciate and spouse.

One of the sure ways of getting to know the prospective associates is to check the feeling and attitudes that peo ple from their home town had about them when they were growing up. Did they have hard working parents? Was the family respected? Are they stable?

Mr. Dickinson is president of Simplified Systems, Inc., Noblesville. He also is state director of Physicians Planning Service, Indiana; state manager of the National Association of Professions; and an instructor for the continuing education of CPAs.

Are they loving and caring? These types of questions will become more important as you weigh the answers against your group's philosophies and objectives.

Please take your time in hiring the right person, because it can eliminate a number of problems later as well as saving you time and money in the long run.

Once you have selected an associate, always have a contract drawn between the group and the prospective partner. Contracts are for the protection of both sides. Make sure the attorney, or whoever designs the contract, puts all the items in the agreement to assure no possible question could arise later that would disrupt the practice. I have known of at least three group practices that did not have proper contracts with new associates and, upon realizing the relationship would not work, had to spend thousands of dollars unnecessarily and devote many unhappy hours to unwind their mistake.

Group practices always should have methods and procedures to check out the new associate's work and attitude on a systematic basis during the first year. These check points can be discussed in your weekly or monthly meetings so all associates can lend assistance or advice to the situation.

Do not leave the hiring duties solely in the hands of an office manager or business manager. If you have a group of 10 or more, appoint a special committee of doctors to assist in the hiring. Remember, no one thinks or understands medicine like another physician!

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PD-85-JA-0867-P-1 (2-82)

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Before prescribing, please see full prescribing information. A Brief Summary follows:

Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in external and internal hemorrhoids, proctitis, papillitis, cryptitis, and fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

CONTRAINDICATIONS

Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

WARNINGS

The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

PRECAUTIONS

General

Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy

See "WARNINGS"

Pediatric Use

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

DOSAGE AND ADMINISTRATION

Anusol-HC Suppositories—Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

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Hyoscyamine Sulfate	0.19 mg
Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0.01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours.

Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response. The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets.

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant. Concomitant use of MAO inhibitors is contraindicated.

WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings).

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time. Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdosage may produce convulsions and death.

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur. Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerotomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia. Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure.

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole.

HOW SUPPLIED:

Bottles of 100 Tablets	NDC 0524-0058-01
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Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestont and expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis. Also, for the temporary relief of symptoms associated with hay fever, allergy, nasal congestion and cough due to the common cold

CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an MAO, hypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated.

Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma or in women who are pregnant.

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming. Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effect and caution taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers.

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease.

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ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, and insomnia. Overdoses may cause respiratory excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia or even convulsions.

DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours but not to exceed 10 teaspoonfuls in any 24-hour period.

Children 6 to 12 years of age: ½ the adult dose, not to exceed 6 teaspoonfuls in a 24-hour period Children 2 to 6 years of age: ½ teaspoonful every 4 hours but not to exceed 3 teaspoonfuls in any 24-hour period Children under 2 years of age to be directed by a physician.

HOW SUPPLIED: (16 fl. oz.)

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Attention Deficit Disorder

TAKUYA SATO, M.D.
Indianapolis

THE ORIGINS of the concept of Attention Deficit Disorder appeared during the 1920s in reports that hyperactivity, antisocial behavior, and emotional instability commonly developed following encephalitis lethargica (Von Economos' disease). The term "brain damage behavioral syndrome" was used to signify the syndrome. In 1934, Kahn and Cohen[1] coined the term "organic drivenness" to describe the intensively hyperkinetic form of reaction. Bradley, in 1937, found that overactivity often responded to stimulant medication.[2] In the 1940s, Strauss' reports greatly contributed to the notion that the presence of hyperkinesis might itself be used as an indication of damage to the brain.[3]

In the 1950s and 1960s, Pasamanick and Knoblock hypothesized[4] a "continuum of reproductive casualty" in which the effects of damage to the brain during the prenatal period and the birth process were thought to vary according to the extent of the damage. When the damage was severe, clear-cut neurological disorder resulted, but when it was mild, there was a predisposition to behavioral difficulties, which was unaccompanied by any overt signs of neurological abnormality.

During the early 1960s, the term "minimal brain dysfunction" was proposed in place of "minimal brain damage" and "minimal brain injury." The term M.B.D. has come to be applied increasingly to a broad group of behavioral and learning disabilities in childhood in which the main features are based on the hyperkinetic syndrome, but with the addition of perceptual, cognitive, and specific learning disabilities.[5] The extension of this diagnosis to a wider and wider segment of the

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TABLE 1

Diagnostic Criteria for Attention Deficit Disorder with Hyperactivity

The child displays, for his or her mental and chronological age, signs of developmentally inappropriate inattention, impulsivity, and hyperactivity. The signs must be reported by adults in the child's environment, such as parents and teachers. Because the symptoms are typically variable, they may not be observed directly by the clinician. When the reports of teachers and parents conflict, primary consideration should be given to the teacher reports because of greater familiarity with age appropriate norms. Symptoms typically worsen in situations that require self-application, as in the classroom. Signs of the disorder may be absent when the child is in a new or a one-to-one situation.

The number of symptoms specified is for children between the ages of 8 and 10, the peak age range for referral. In younger children, more severe forms of the symptoms and a greater number of symptoms are usually present. The opposite is true for older children.

A. INATTENTION. At least three of the following:
   (1) often fails to finish things he or she starts
   (2) often doesn't seem to listen
   (3) easily distracted
   (4) has difficulty concentrating on school work or other tasks requiring sustained attention
   (5) has difficulty sticking to a play activity
B. IMPULSIVITY. At least three of the following:
   (1) often acts before thinking
   (2) shifts excessively from one activity to another
   (3) has difficulty organizing work (this is not being due to cognitive impairment)
   (4) needs a lot of supervision
   (5) frequently calls out in class
   (6) has difficulty awaiting turn in games or group situations
C. HYPERACTIVITY. At least two of the following:
   (1) runs about or climbs on things excessively
   (2) has difficulty sitting still or fidgets excessively
   (3) has difficulty staying seated
   (4) moves about excessively during sleep
   (5) is always "on the go" or acts as if "driven by motor"
D. Onset before the age of 7
E. Duration of at least six months
F. Not due to Schizophrenia, Affective Disorder, Pervasive developmental disorders or Profound Mental Retardation

child psychiatric population is illustrated by Wender's estimate that it applied to about half of all cases[6] and by Gross and Wilson's use of the term for a majority of their patients.[7]

Although ambiguities and controversies continue to surround minimal brain dysfunction to the present, progress is made by the active research investigations worldwide and by adoption of the new terminology, Attention Deficit Disorders (ADD), by the American Psychiatric Association for its nonetiologic/descriptive connotations. In any case, keeping in mind the historical background against which the term ADD eventually has been coined helps us to understand it more clearly. The purpose of this paper is to present current knowledge about ADD.

Epidemiology

Attention Deficit Disorder with hyperactivity has been observed in children of varying socioeconomic status and nationality. Reports[9] as to its prevalence in the United States have varied between 3% and 10%, or even higher of prepubertal children. Rutter reported only one per 1,000 children in the Isle of Wight general population survey, and only 1½% of nonretarded British psychiatric clinic attenders.[10]

A conservative figure, and one more likely to be accepted, is that of 3% of prepubertal children in the United States, occurring 10 times more commonly in boys than in girls. Reports of the sex ratio vary between 1.4 : 1[11] and 9 : 1.[12] There are little data of the incidence of ADD because the time of onset of a new case has not been researched.

Clinical Features

The ten[10] characteristics most often cited by various authors are, in order of frequency: 1) hyperactivity, 2) perceptual-motor impairment, 3) emotional lability, 4) general coordination deficit, 5) disorders of attention (short attention span, distractibility, perseveration), 6) impulsivity, 7) disorders of memory and thinking, 8) specific learning disabilities, 9) disorders of speech and hearing, and 10) equivocal neurological signs and electroencephalographic irregularities.[13] The phenomena are variable and inconsistent across the times and situations.

Most children with attention problems will have one or more types of specific learning disability. (The specific learning disability is separately classified as "Specific Development Disorders," to be recorded as an Axis II diagnosis in the DSM-III.)

Academic difficulties are common among ADD children who are sensorily intact and of average or above average intellectual ability. Silver wrote, "Each child will have his own profile of learning weaknesses and learning strengths. There is a certain trend for the disabilities to group themselves into one of two basic patterns. One pattern relates to disabilities in visual perception, visual integration, visual memory, fine motor, and/or visual motor areas. Another group of children suffers disabilities in the auditory perceptual, auditory integration, auditory memory, language output areas."[14]

Silver reported, "Of children with the minimal brain dysfunction syndrome, about 40% will be hyperactive and/or distractible with a short attention span . . . About 60% of these children will demonstrate the specific characteristics of learning disabilities but will not be

hyperactive and/or distractible." Rutter reported that one-third of Reading Disorder children also show Conduct Disorder and one-third of Conduct Disordered children also show Reading Disorder.

Etiology

While the cause of this syndrome is not known, there probably are several etiologic factors that could lead to its multiple clinical aspects. Silver postulated, "There may be a spectrum of disorders caused by pre-, peri-, and postnatal brain damage . . . Depending on location, extent of damage, time of life, and developmental stage at the time of damage, the stress might cause death, cerebral palsy, epilepsy, or mental retardation . . . The less severe forms might produce a variety of learning and behavioral disorders." A delay in the development of the central nervous system may be another cause.[15] Such children may reflect one or more characteristics at birth secondary to the continuation of perinatal reflexes that normally extinguish during the early hours of life.

The probability of a genetic basis for this syndrome has been studied.[16,17] The evidence available to date provides no support for the notion of the hyperkinetic syndrome as a meaningfully distinct genetic entity.[18] There is neither any good evidence to confirm that biochemical abnormalities constitute the basis of hyperkinetic syndrome nor, more importantly, is there an indication of any biochemical feature that is specific to the hyperkinetic syndrome.[18] Neither have the reports that attempted to relate the hyperkinetic syndrome to deficiencies in specific vitamins, trace elements, glucose or biophysiological reaction to food allergies been validated.

Diagnosis

The diagnosis remains essentially clinical. A team effort is required to make a diagnosis of ADD that goes beyond the label. The physician must work with psychologist, teacher, neurologist, child psychiatrist, and speech pathologist. *Table 1* describes diagnostic criteria for ADD with hyperactivity adopted from DSM-III.

An adequate workup involves the following: interviewing the parents and getting a detailed history of pre-, peri-, postnatal development; family history; interviewing and observing the child; and using a systematic behavior-rating scale (e.g., Conners parent and teacher questionnaire) filled out both by the parents and, most importantly, by the school teacher. It is necessary to obtain information from the school without its first being filtered through the parents.

Individually administered intelligence test(s) and academic achievement test(s) are crucial in assessing areas of the child's learning disability and his strength, and in designing an effective educational intervention program. The multiaxial system for diagnosis of DSM-III will enable a clinician to diagnose, for example, ADD and Conduct Disorder as Axis I diagnosis and Developmental Reading Disorder as an Axis II diagnosis.

Treatment

There is no single treatment or magical cure for ADD. The accepted treatment must employ varying combinations of family counseling, use of stimulant medication, educational intervention and various forms of psychotherapy—in that order. Parents and siblings of ADD children need help understanding the child's problems, as well as with understanding their own reactions to his disabilities. Parents have to go through a grief reaction similar to the reaction of parents of dying children. Denial, anger and self-blaming may extend into a fixed, often dysfunctional, pattern of behavior. Certain other patterns, such as "doctor shopping," overprotectiveness, faulting professionals and withdrawal from the child will significantly complicate the treatment processes.

The use of methylphenidate has been shown to be effective in about 75% of ADD cases with hyperactivity for both the behavioral and the cognitive aspects of the disorder. However, studies show little evidence that stimulant drugs improve short-term academic functioning, and they seem to have no effect at all on any long-term outcome. Little has been firmly known of the stimulants' effect on two other types of ADD.

Methylphenidate is given in an individually titrated amount between 5 mg. and 60 mg. daily or at 0.25 mg./kg/d., in two to three divided dosages. The time-profile of methylphenidate serum levels corresponds to the clinical time course of drug action, with peak levels at 60 to 120 minutes and a half-life of two to four hours.[20] Fears of growth suppressant effects, as well as potentiating later substance abuse, probably have largely been allayed. Some children develop anorexia and/or insomnia. Few children develop hypersensitivity, eosinophilia, tic disorders, choreoathetosis, acute behavior deterioration or psychosis. "Drug holiday" is of little benefit for those children who are hyperactive both at home and in school.

The second choice of the psychostimulants for ADD children who have failed to respond to methylphenidate is amphetamine sulfate or dextroamphetamine sulfate. The customary recommended starting dosage is 5 mg. for children 6 years of age or older, and 2.5 mg. for children between 3 and 5 years of age. The amphetamines are not recommended for children under 3 years of age. The daily dosage may be raised in increments of the same dosage as the starting dosage at weekly intervals until optimal results are obtained.

Common side effects of stimulants include anorexia, abdominal pain, insomnia, and headache. In some cases, a single dose after breakfast is sufficiently beneficial, but it may be necessary to add another dose at noon or to use sustained release form. A total daily dosage above 40 mg. is rarely required. Because of high potential for abuse of amphetamines, caution should be taken to insure maximum compliance with the prescribed directions.

Pemoline is the third of the central nervous system stimulants used to treat ADD with hyperactivity. Its clinical benefit may not be evident until the third or fourth week of drug administration. Pemoline is customarily started with a single oral dosage of 37.5 mg. each morning, which should be gradually increased by 18.75 mg. per day at one-week intervals. The effective daily dosage for most patients will range from 56.25 mg. to 75 mg. Imipramine has been reported to benefit some children with ADD with hyperactivity.

Combined administration of two drugs, such as methylphenidate plus imipramine, may be more effective than a single medication. Beneficial results of the stimulants have been found to be highly correlated with a stable family environment. Contrary to the earlier belief, current data [19] suggest that more than half of hyperactives continue to have symptoms in adult life. Perhaps 30% outgrow it, but about 20% become seriously disturbed or criminal. Silver reported that between 15% and 20% of children with the disorder continued to need psychostimulants into their adolescence and adulthood.

If indicated, psychotherapy addresses secondary symptoms, such as depression and low self-esteem. In practice, children who are hyperactive also are usually socially disruptive, aggressive, or antisocial. Sometimes, though infrequently, the ADD child needs a period of residential treatment, if a downward spiral of maladaptive interaction between him and his environment has taken on its own life and he has become stably dysfunctional.

As to unconventional approaches to treat the disorder, the current evidence indicates 2% to 3% of hyperkinetic children may get some benefit from the "Feingold diet," though the underlying mechanism effecting improvement has not been clearly understood. Motor patterning exercise has no long-term effect on the disorder.

Summary

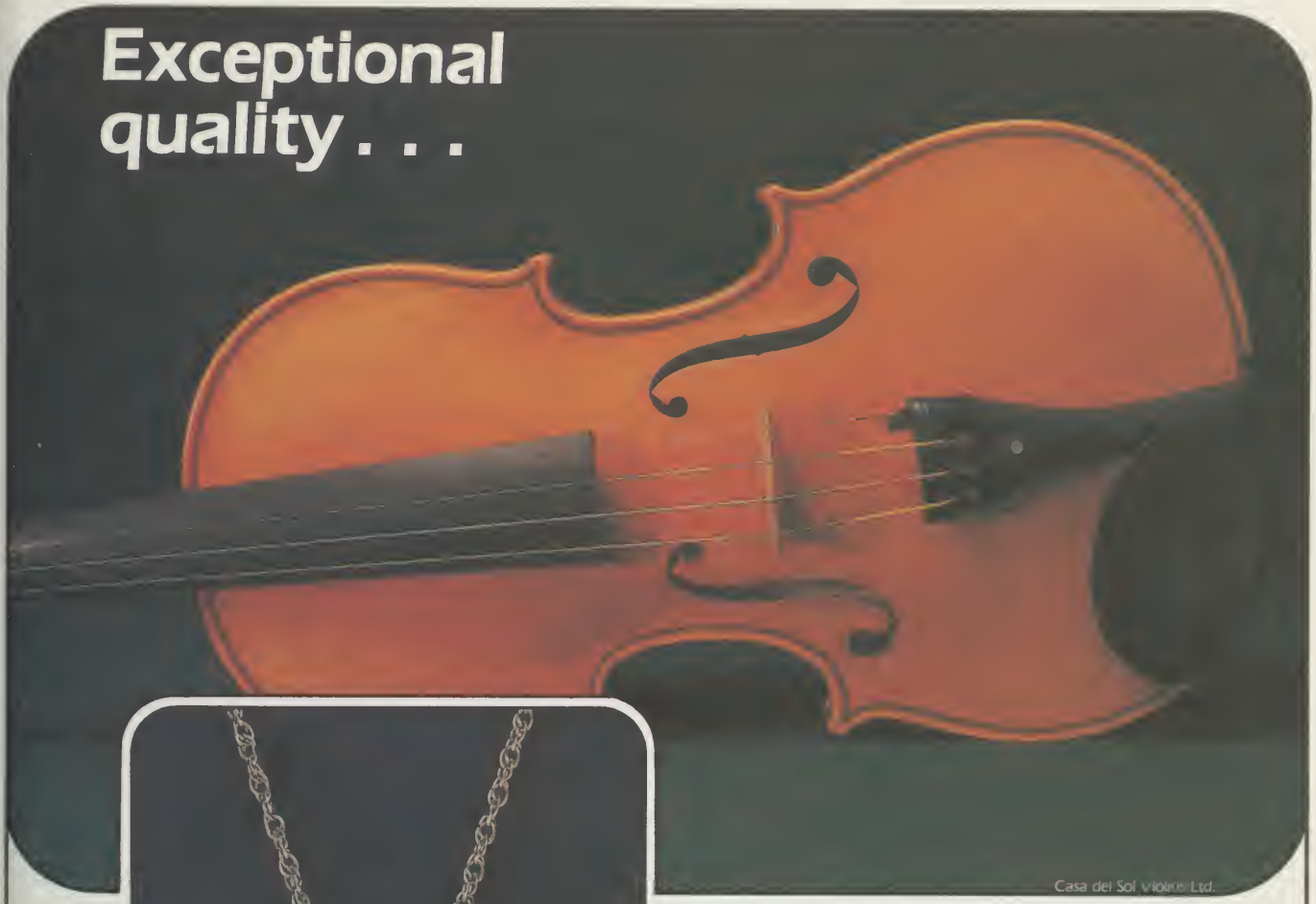
Attention Deficit Disorder with hyperactivity is a descriptive term that specifies three cardinal sets of symptoms: developmentally inappropriate attention, impulsivity and hyperactivity. It occurs in about 3% of school populations in the United States and is more common in boys than in girls. Etiology is unknown. Diagnosis is primarily clinical: detailed histories of the child and family members, behavioral reports, behavior observation, psychiatric—medical—neurological examinations, and psychological testing of intelligence and of academic achievement. Each child must be assessed individually.

There is no single treatment but rather a variety of therapeutic modalities. Medication sometimes is necessary before any other treatment is possible. Some children with the disorder may continue to require medication into their adolescence and adulthood. An understanding of the child's areas of weaknesses and strengths, the use of psychostimulants, and steering him toward likely successes rather than probable failures in both school and at home are essentials in treating the disorder. Unless diagnosed early and treated effectively, it will develop into a downward spiral of "total life disability," compounded by its negative effect upon learning, social relations and self-concept.

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WILLIAM K. NASSER, M.D.
Indianapolis

In Part 1 of this three-part series on nuclear cardiology, the technique and clinical usefulness of myocardial perfusion imaging with thallium-201 was discussed. In this section, we will address a different type of study, radionuclide angiography (blood pool imaging), in which an intravenously injected radioactive material is detected and displayed as it is carried by the blood stream through the pumping chambers of the heart and its great vessels.

At present, two techniques are utilized for blood pool imaging *(Table 2)*. The first technique involves labeling of particles (usually red blood cells), which are present in the intervascular compartment with technetium-99m. A single-crystal gamma camera interfaced with a small computer is then used to detect the location and rates of change of radioactivity from areas corresponding to individual cardiac chambers. Data manipulation then produces information relating to the heart size, motion, and pumping characteristics.

The electrocardiogram usually is utilized in this type of study to indicate end diastole (QRS complex) of each cardiac cycle. This permits external counts for many different cardiac cycles to be summed together electronically with the use of the computer to yield a compromise "representative cycle" from a specific region of interest. This technique is termed multigated acquisition format (MUGA) *(Figure 2)*.

The second technique used for blood pool imaging involves the use of a specialized camera with many counting crystals all linked together in a computerized grid network to enable extremely high external count rates. No blood pool tagging is performed with this technique; rather, the passage of a single intravenous injection of radioactive material is traced through each chamber of the heart sequentially ("first pass" imaging). Recognition of the individual advantages and disadvantages of the first pass versus MUGA radionuclide angiography enable the appropriate technique to be chosen for an individual patient. Whichever technique is chosen, conscientious data collection, manipulation, and reporting enable excellent, reproducible results to be derived both at rest and during intervention studies *(Figure 3)*.

Rest Studies

In the early 1970s, investigators developed and validated both MUGA and first pass techniques for blood pool imaging. Excellent correlation has been demonstrated between the left ventricular ejection fraction and regional wall motion indices determined by both biplane left ventricular cineangiography and radionuclide angiography.[5] Calculation of the ejection rate during the first one-third or one-half of systole, which is known to be delayed in patients with significant left ventricular dysfunction, also can be made.[16] The rate of left ventricular filling also may be analyzed in early as well as total diastole to reflect altered left ventricular diastolic compliance.[17]

TABLE 2: Comparison of First Pass Versus Multi-gated Techniques for Radionuclide Angiography

	First Pass	MUGA
Dependent on bolus injection	Yes	No
LV ejection fraction	Good	Good
RV ejection fraction	Good	Good
LV regional wall motion	Good	Excellent
Cardiac volumes, cardiac output	Good	Good
Shunt studies	Good	Not possible
Exercise studies	Excellent	Adequate
Imaging time	30 seconds per view	2-15 minutes per view
Study affected by tricuspid regurgitation or pulmonary hypertension	Yes	No
Radiation exposure	0.5 rad (more to gonads)	0.5 to 2.3 rads per study

Part 3 will appear in the January 1983 issue of THE JOURNAL.

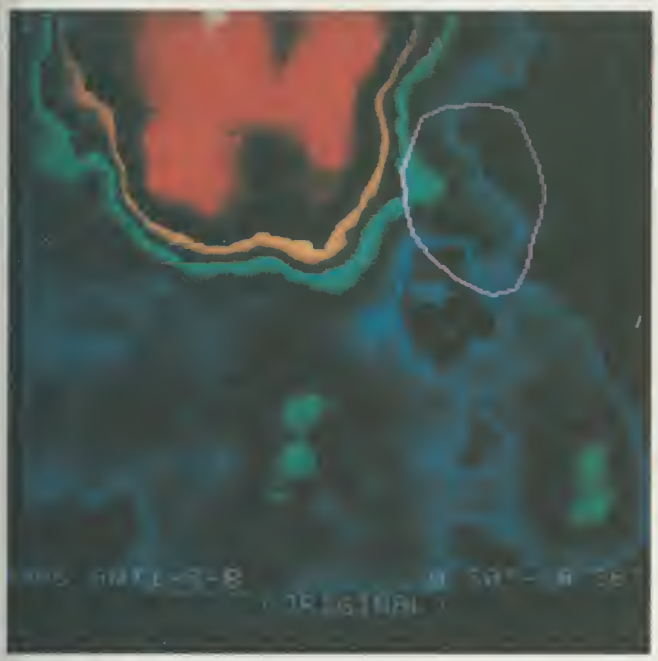


FIGURE 2-A

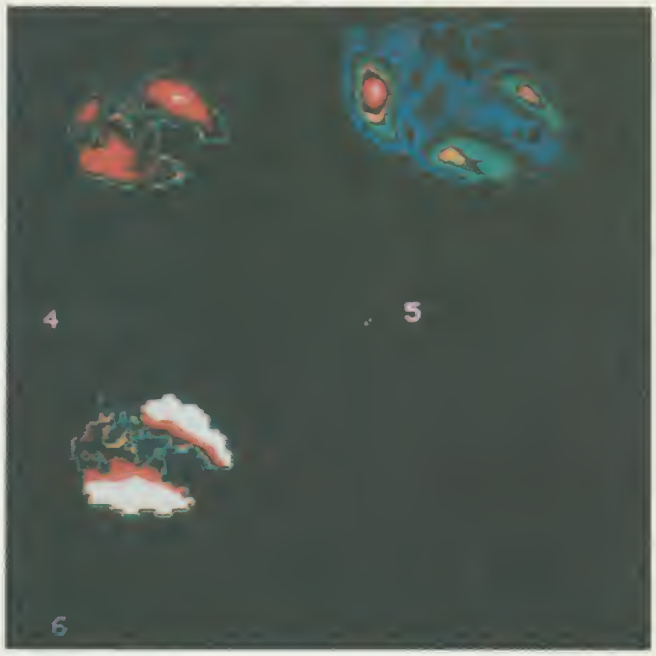


FIGURE 2-B

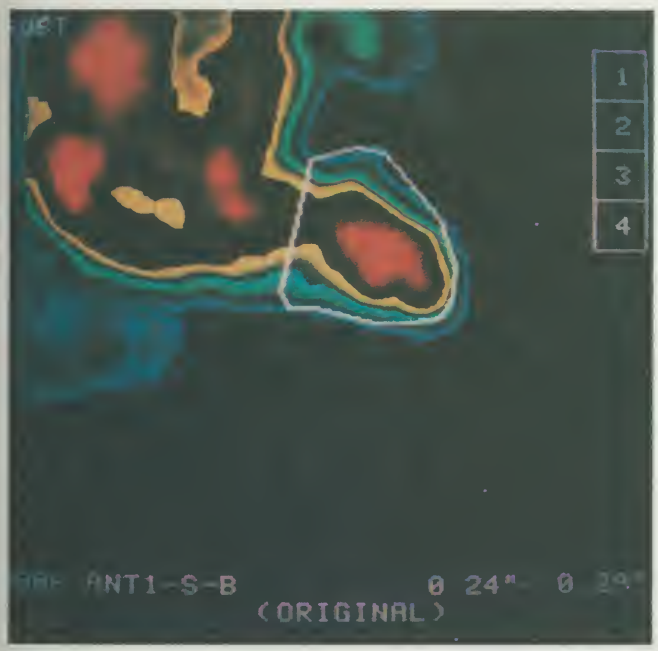


FIGURE 2-C

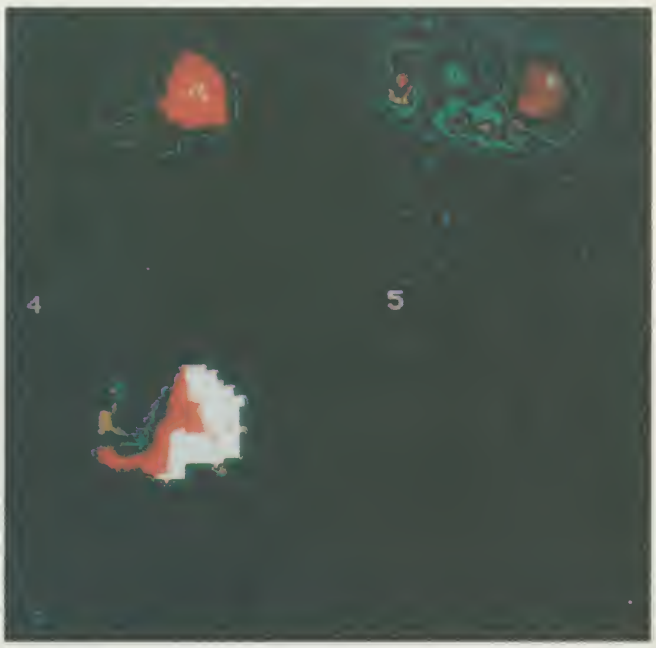


FIGURE 2-D

FIGURE 2: Panel A shows a patient's end diastolic perimeter (white line) superimposed on the blood pool at end systole (anterior projection). Panel B displays computer-enhanced LV ejection data in which relative changes in regional wall motion are normalized and color-coded to assist in data analysis (same patient as Panel A; EF = .75, normal regional wall motion). Panel C displays the anterior projection end diastolic perimeter and end systolic blood pool in a patient with recent anterior wall myocardial infarction. Inspection of the computer-enhanced silhouettes in Panel D confirm that the anteroapical regional wall motion is dyskinetic (aneurysmal bulging) during systole. (Ejection fraction = .42.) Note the large break in the white perimeter at the apex in image 6 when compared to Panel B above. Comparison of image 5 to image 4 shows a faint blue color at the apex in image 5 due to the systolic accumulation of radioactivity outside the end diastolic perimeter. This is a very specific way of indicating regional myocardial dyskinesis during systole.

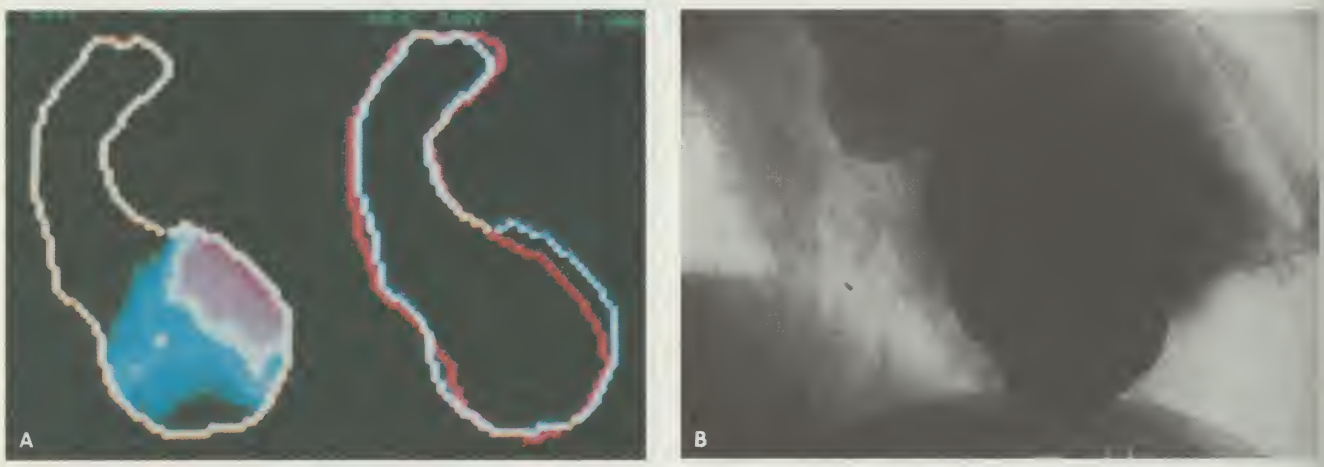


FIGURE 3: Resting "first pass" study. Panel A is a left anterior oblique projection of the left ventricle of a patient with a large inferior left ventricular aneurysm. Note how the end systolic image (red) moves outside the end diastolic image (white) on the right, corresponding to the black area in the regional ejection fraction image displayed in the left. Panel B is the end systolic image of the same patient as displayed in Panel A. Note the large inferior left ventricular aneurysm.

These latter studies increase the sensitivity and predictive accuracy for recognition of coronary artery disease, as the diastolic compliance has been shown to become abnormal before the global systolic ejection fraction. In a similar fashion, assessment of right ventricular contractile performance has been shown to be clinically useful in evaluating patients with chronic obstructive pulmonary disease or congenital heart disease.[18] With the ability to evaluate simultaneous right and left ventricular function, it became possible to calculate the degree of aortic and/or mitral regurgitation.[19] These calculations are facilitated by accurate calibration of both left and right ventricular chamber volumes.[20] With determination of individual chamber volumes, accurate cardiac output determinations also are possible.[21] Finally, improved resolution of equipment has facilitated direct measurement of left atrial function,[22] shunt quantitation,[23] and recognition of left ventricular thrombi.[24]

Intervention Studies

Since the early animal studies performed by Tennant & Wiggers in 1935, it has been widely recognized that regional left ventricular dysfunction quickly develops following a decrease in regional myocardial perfusion with subsequent myocardial ischemia.[25] Using this physiologic theorem, early investigators looked for a decrease in left ventricular ejection fraction and/or the appearance of a new left ventricular regional wall motion abnormality during

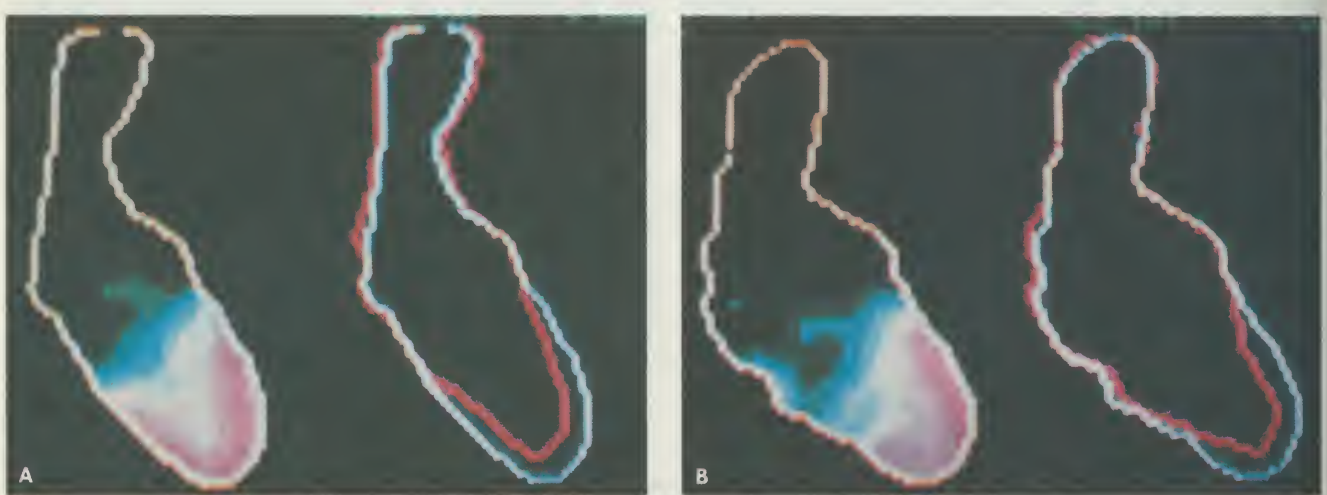


FIGURE 4: Panel A shows a first pass left ventricular end diastolic and end systolic perimeter study on the right, and end diastolic perimeter surrounding the regional ejection fraction image on the left. This was a rest study performed in the anterior view. (Ejection fraction = .48.) Panel B shows an exercise study performed on the same patient as Panel A. Note the appearance of a new regional wall motion abnormality in the inferior wall with no increase in the left ventricular ejection fraction (.45).

the stress of exercise as an indicator of coronary artery disease *(Figure 4).*

Enhanced diagnostic recognition of patients with coronary artery disease when compared to the routine electrocardiographic graded exercise test became possible.[26] For example, Borer and his associates studied 63 consecutive patients with greater than or equal to 50% stenoses of at least one coronary artery.[27] Fifty-nine (94%) had regional dysfunction of the left ventricle with exercise and 56 (89%) failed to increase their left ventricular ejection fraction by more than 5% during exercise. When both of these observations were considered together, the diagnostic sensitivity was 95%.

In these same patients, only 42 (66%) developed angina pectoris, and only 26 (41%) developed greater than or equal to 1 mm. of ST segment depression during exercise electrocardiography.

A similar study was performed by Bodenheimer and his associates, comparing not only the exercise electrocardiogram and stress radionuclide angiography, but also thallium-201 myocardial perfusion imaging in a similar series of patients.[28] Exercise induced ST segment abnormalities were found in 58%. Thallium-201 perfusion imaging defects were detected in 82% of the patients with coronary artery disease. Stress induced left ventricular dysfunction also correctly identified 82% of the patients with coronary artery disease.

In a control group of patients with normal coronary arteriography, the specificity of the exercise electrocardiogram was found to be 84%, exercise thallium-201 imaging 89% and regional left ventricular wall motion study 79%. Similar results have been reported by many investigators, as recently summarized by Berger and Zaret.[29]

One is led to conclude that evaluation of the stress thallium perfusion image or left ventricular regional wall motion image is superior to the analysis of exercise induced ST segment abnormalities. Radionuclide angiography would appear to have a slightly lower specificity than thallium-201 stress testing, but this should not be unexpected as the presence of any type of cardiac disease, e.g., hypertensive heart disease or valvular heart disease, alters the functional reserve of the left ventricle during stress without affecting myocardial perfusion patterns.

In addition to its clinical utility in assessing the left ventricular function in the setting of coronary artery disease, stress radionuclide angiography also has been shown to be extremely important in the evaluation of patients with asymptomatic aortic insufficiency. The studies of Borer and his associates suggest that a most appropriate way to follow an asymptomatic individual with aortic insufficiency is with serial rest and stress radionuclide angiograms.[30]

When the patient fails to increase the ejection fraction with stress, serious consideration should be given to aortic valve replacement despite the fact that the patient is asymptomatic. Failure to intervene operatively at this time could mean a less than optimal result from later surgery.[31]

Other methods of stress intervention have been tested in addition to exercise. Isometric hand grip exercise or cold pressor stimulation are somewhat less sensitive in the diagnosis of coronary heart disease than exercise, yet in the individual incapable of leg exercise due to peripheral vascular disease or neuromuscular disorder, it can yield diagnostic information.[32]

In a similar fashion, nitroglycerin and other pharmacologic agents have been utilized to assess cardiac functional reserve, particularly in the setting of chronic left ventricular ischemia. For example, a patient with severe left ventricular dysfunction but marked improvement following nitroglycerin administration would seem to be a more suitable candidate for surgical intervention than the individual with severe depression of left ventricular function and no such improvement.[33] Similar pharmacologic studies have been utilized with pre-load and after-load reducing agents in the setting of congestive cardiomyopathy to assess chronic therapeutic efficacy.[34]

Summary

Rest radionuclide angiographic studies are useful in detecting right and left ventricular dysfunction, intra-cardiac shunts, quantitation of aortic insufficiency and/or mitral insufficiency, the calculation of cardiac chamber volumes and cardiac output. Serial resting studies may be useful in assessing therapeutic intervention, e.g., after-load reduction therapy, or following possible left ventricular damage from toxic agents, e.g., Adriamycin.

Stress studies are useful for screening patients with possible cardiopulmonary disease, recognizing that specificity may be less than when thallium-201 myocardial perfusion scanning is utilized when diagnostic recognition of coronary artery disease is being evaluated. It is important to recognize the limitations inherent when analyzing the response of left ventricular performance to exercise stress in individual patients. Medications such as nitroglycerin[35] or the beta blockers[36] may normalize left ventricular function during stress in a patient with coronary heart disease.

It has been shown that age, sex, position (upright versus supine), duration of exercise, and resting ejection fraction may significantly affect left ventricular response to exercise stress.[36-39]

Finally, any disease which affects the myocardium, be it valvular, congenital, or myopathic, will influence left ventricular response to stress. Therefore, if one is searching diagnostically for the presence or absence of coronary artery disease, thallium-201 perfusion imaging often is a more appropriate test to order initially, particularly if one of these other disease states is present.

If one is screening otherwise normal individuals for presence or absence of coronary artery disease, then radionuclide angiography would be a preferable first choice as it utilizes a less expensive, more widely available isotope and has the same or less radiation exposure to the patient.

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Office Evaluation of the Pulmonary Patient

PART 2 OF 2 PARTS

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Laboratory

Sputum evaluation. The sputum evaluation is probably the single most important laboratory tool in the diagnosis of lung infections. It is rapid, easily obtainable and inexpensive. It should be obtained from a deep cough; that is, tracheobronchial secretions and not saliva, "spit." The gross specimen can look "rusty," as in pneumococcal pneumonia; "currant jelly," as in Klebsiella; "creamy yellow," as in staphylococcal infection; or "greenish," as in Pseudomonas infections.

The wet prep is the quickest method of differentiating infectious from noninfectious disease. A sputum sample is simply observed under high power cover slip. Absence of squamous epithelial cells and the presence of polymorphonuclear leukocytes with the presence of alveolar macrophages suggests an adequate specimen. First, look for the presence or absence of eosinophils. Eosinophils can be recognized by their bilobed nuclei, equisized cytoplasmic granules and lack of Brownian movement. Neutrophils will have multilobe nuclei, small variegated cytoplasmic granules and Brownian movement. Both are 7-10 microns in diameter and are smaller than alveolar macrophages. The polymorphonuclear leukocytes generally will contain bacteria while eosinophils do not. If there are more than 15% eosinophils, an allergic disorder should be suspected. Other findings in the wet prep will be Charcot-Leyden crystals or Cushman spirals, both seen in patients with asthma.

The gram stain is a rapid predictor of the etiology of many tracheal, bronchial or pulmonary parenchymal infections. It should be screened for adequacy, as above, and stained in the usual manner.[1] The predominant organism usually is the pathogen, assuming an adequate specimen is obtained. If multiple polymorphonuclear leukocytes are found without any visible bacteria organisms, consider Mycoplasma or Legionnaire's Disease.

Spirogram: Very few offices today are without an EKG machine and I would hope that very few offices are without a spirometer. It is a very simple, reliable and sensitive tool both to detect and follow the course of lung ailments. An inhaled bronchodilator that gives 15-20% response in the FEV_1 is characteristic of bronchospastic airway disease. A low vital capacity with a normal flow rate is consistent with restrictive airway disease. Normograms are readily available and usually sold to the physician at the time of purchase of the spirometer. If a more sophisticated evaluation is required, flow volume loops are readily available which give both upper and lower airway information. Most recently, suggestive evidence of sleep apnea syndrome has been described with the flow volume loop.[2] The spirometer is not only useful in diagnosing lung disease, but it is also very helpful in motivating a patient to stop smoking cigarettes. A visual display on how bad his lungs really are is a great aid in helping me to get the patient to stop smoking, especially if I compare his spirometric curve in front of him with those of a normal curve.

Peak Flow Meter: I most commonly use a Wright's peak flow meter in following my asthmatic patients. A recent article[3] incorporates the use of a peak flow meter along with several other signs and symptoms that can allow one to decide whether or not the asthmatic patient, during an acute episode, can be managed as an outpatient or should be admitted. A series of seven signs and symptoms are given and each positive sign or symptom is arbitrarily assigned one point. Any patient with four or more points should be admitted to the hospital. The unlikelihood of breaking the attack or the possibility of the patient returning within 10 days with a subsequent attack is high if his score is four or more.

The signs and symptoms used in the evaluation are:

1. pulse rate equal to or greater than 120 beats per minute
2. respiratory rate equal to or greater than 30 respirations per minute
3. pulsus paradoxus equal to or greater than 15 mm of mercury
4. a peak flow rate of equal to or less than 120 liters per minute
5. moderate to severe dyspnea
6. accessory muscle usage
7. wheezing

I also use a peak flow meter to follow my asthmatics on a daily basis when

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they come for a routine check. It is very easy to get a pre- and post-bronchodilator peak flow, and this gives me a good idea of what condition the asthmatic is in and how much he still responds to an inhaled bronchodilator. This can be done in the office using a nebulized bronchodilator.

Miscellaneous Procedures and Tests

Indirect Laryngoscopy: A headset with a light source and laryngeal mirror gives me a good look at the posterior pharynx and vocal cords to assist in the evaluation of a chronic cough or hoarseness. Laryngeal carcinoma, lax vocal cords and even a paralyzed vocal cord can be diagnosed easily in this manner. If there is any doubt, I will then ask for a full ear, nose and throat evaluation by a specialist.

Thoracentesis: I use a phlebotomy bottle with a double needle tubing for quick and easy access to the pleural space. Often I will percuss the fluid level, perform a diagnostic thoracentesis and hand-carry the fluid to the hospital laboratory for its evaluation. A post-thoracentesis chest film can be obtained quite easily. Many of my cancer patients would prefer to come in every three or four weeks for a repeat therapeutic thoracentesis, rather than be put through hospitalization and the discomfort of pleural adhesive measures.

View Boxes: Although not absolutely mandatory, I find that having a bank of view boxes in my office is extremely time-saving and rewarding. Each patient, on referral, is told to bring not only his or her office records, but also any and all chest x-rays. A direct comparison made at the time of the visit can put all the pieces together right on the spot rather than reviewing the x-rays at another time and place when the patient's signs and symptoms are not as fresh in your mind.



The spirometer is used to detect and follow the course of lung ailments.

Summary

Respiratory-related illnesses are a common problem that cost Americans millions of dollars annually in both medical expenses and loss of work. Since the initial contact most patients have with their physician is in the office setting, this is undoubtedly the quickest, easiest and most cost-effective method of both diagnosing the respiratory patient and beginning a plan of therapy.

I have tried to highlight what I have found most helpful in the outpatient evaluation of the pulmonary patient. There are doubtless many more findings and procedures that can be added, but this article is not meant to be all-inclusive; simply one pulmonologist's view that can be used as a guideline to the outpatient evaluation of respiratory problems. I hope that we see more physicians using this outpatient, minimal laboratory type of approach. Hopefully, this will lead to more physicians utilizing their hands, eyes, ears, and, most importantly, their brains instead of automatically hospitalizing the patient and ordering a battery of tests, hoping that one of them will give him an answer.

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Otologic Disorders in Children.

PART 2 OF 3 PARTS

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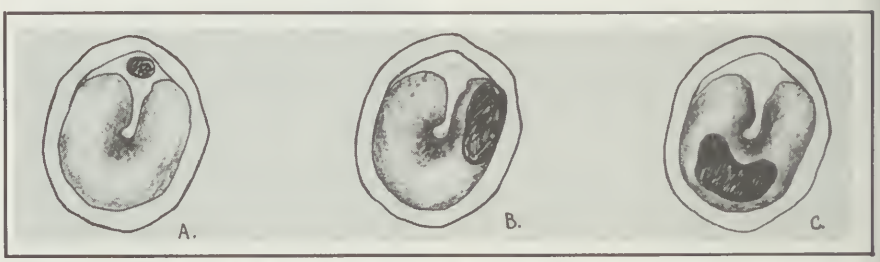


FIGURE 7—Types of eardrum perforations: A="attic", B=marginal, C=central.

Acute Otitis Media

Etiology: Acute middle ear infections again are due to eustachian tube factors. In the infant, the eustachian tube is straight and at almost a right angle with the nasopharynx. Upper respiratory infections can easily spread directly into the middle ear. With maturation of the child, the eustachian tube elongates, narrows, and assumes an approximate 45-degree angle with the nasopharynx. Thus a certain "maturation" of the eustachian tube occurs with age causing the less susceptibility of the older individual to acute ear infections.

With an upper respiratory infection, eustachian tube congestion leads to serous fluid accumulation in the middle ear; this fluid becomes contaminated with bacteria and the characteristic symptoms of fever, otalgia, and decreased hearing develop. The bacterial invaders are usually pneumococcus, Hemophilus influenzae, streptococcus or staphylococcus. Acute hemorrhagic otitis media (streptococcus) may progress so rapidly that the eardrum can rupture two hours after the process has started.

Diagnosis: Fever, otalgia, decreased hearing and an inflamed tympanic membrane which later becomes bulging are characteristic signs.

Treatment: In order to deal with the infection and to prevent loss of hearing, the eardrum should, in many cases, be opened and the infected material allowed to drain out. Unless the infection is early in onset, it is unwise to rely upon antibiotics to control the process. Adequate opening of the eardrum plus the use of antibiotics will lead to the best results with regard to the control of infection and restoration of normal hearing. A common mistake in the treatment of otitis media is inadequate antibiotic therapy. Although no statistical studies are supportive, our experience has been that the child should be treated for ten full days. Sleeping with the head elevated and use of a systemic decongestant for approximately one month help reduce middle ear and eustachian tube mucosal membrane congestion.

Impacted Cerumen

Certainly ear wax may accumulate in the external ear canal in such a quantity as to block the passage of sound. In addition to this, foreign bodies such as beads, gravel, beans, or other material can become lodged in the canal without the parents' knowledge. Occasionally, cotton from applicators may be lost in the external ear canal. All of these substances should be removed before they diminish hearing or become infected.

External Otitis

Infections of the skin of the ear canal may cause accumulation of debris and discharge so that hearing is diminished. Also the canal may swell so that it is practically shut. Such infections may occur in the first few days of life or at any time thereafter. These afflictions can be quite painful and be tenacious and have to undergo therapy for long periods. Microscopic cleansing of the ear canal with insertion of medication absorbing wicks is invaluable in reducing ear canal swelling and inflammation.

Congenital Deformity

Failure to develop an external ear and ear canal leads to a great conductive loss in hearing. The lack of an external ear (auricle) is of only minor significance as regards hearing. However, failure to

Last month's issue of THE JOURNAL considered the background of hearing loss and discussed means of detection as well as the problem of serous otitis media ("fluid in the ears"). This installment is a continuation of that initial article.

Part 3, dealing with sensorineural hearing loss and mixed hearing loss, will appear in the January 1983 issue of THE JOURNAL.

develop an ear canal, especially when this condition is present on both sides, can be devastating. Appropriate auditory testing, the early fitting of bone conduction amplification, and polytomes of the temporal bone to evaluate the status and development of the middle and inner ears is an absolute necessity. In the bilateral affliction, this condition can be corrected unilaterally by surgery and a satisfactory hearing level obtained. This surgery is not applicable to all cases and requires a high degree of technical skill. Opinions vary somewhat as to the age at which the surgery should be done, some feeling confident to proceed at three years of age, and others desiring to wait until about five years of age. In any event, the child should have the benefit of rehabilitative measures until such time as surgery is done.

Chronic Otitis Media

Etiology: Benign central perforation. A central perforation, with or without ossicular damage, causes conductive hearing loss and makes the ear prone to repeated infections. With each upper respiratory infection or the accidental entrance of water into the ear, an acute infection with possible further damage will occur *(Figure 7).*

Cholesteatoma

A cholesteatoma is a skin cyst in the middle ear cavity and/or mastoid area. There are three ways a cholesteatoma can develop. In *congenital cholesteatoma,* an Ectodermal cyst is trapped behind an intact eardrum at birth. As the cyst enlarges it can rupture through the eardrum, erode structures of the middle and inner ear, and become infected causing a worsening of all associated symptoms. An *acquired cholesteatoma* is of two types. (a) Primary acquired. An untreated eustachian tube malfunction which leads to serous otitis media can cause such great negative middle ear pressure that the superior part of the tympanic membrane can become invaginated into the middle ear cavity. This sac of skin then desquamates epithelium which enlarges, forms a cyst, and erodes into the middle ear and mastoid areas. (b) Secondary acquired. This usually is the result of acute otitis media that ruptures spontaneously near the margin of the eardrum (one reason for doing a myringotomy). As the eardrum attempts to heal itself, squamous epithelium grows over the margins of the perforation and into the middle ear and mastoid area. As the cholesteatoma enlarges, these ears almost always have intermittent infection and drainage. The cholesteatoma erodes any bone with which it comes in contact, e.g., the ossicles, bone over the facial nerve, the labyrinth, etc..

All cholesteatoma is potentially life threatening.

Treatment: Most chronic otitis media is confined to the middle ear. Aural cleaning of the ear using a suction tip and cotton applicator and local antibiotics (drops or powder) is the medical treatment of choice. The ear must be cleaned of all debris and purulent material for local treatment to be effective. It is an absolute necessity that no water be allowed to enter the ear.

Surgery: Benign central perforations in children should be closed by an operative procedure known as myringoplasty. If the ossicles are damaged, they can be repaired at the time of surgery. Thus can not only hearing be restored, but no restrictions, such as keeping water out of an ear, need be placed on the child.

Any chronic otitis media with cholesteatoma is an absolute indication for surgery. Although medical therapy will sometimes control the infection of the cholesteatoma for varying lengths of time, nothing short of total removal of the disease will cure the patient. With modern tympanoplasty techniques, it is possible to remove all cholesteatoma and disease in most cases and restore hearing and preserve function of the ear.

Medullary Carcinoma of the Thyroid Gland

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ALTHOUGH MEDULLARY carcinoma of the thyroid gland is not a commonly encountered clinical problem, it is important because it may be familial and, with modern techniques, early diagnosed. I, therefore, propose to present an update of this disorder.

Medullary thyroid carcinoma (MCT) arises from the neural crest-derived thyroidal C-cell system. This tumor accounts for approximately 10% to 12% of all thyroidal neoplasms and occurs in both sporadic and familial forms. It was first described as a distinct clinicopathological entity by Hazard, Hawk and Crile in 1959.[1] This tumor has been the subject of extensive investigation by endocrinologists, biochemists, pharmacologists, geneticists and surgeons because it allows for the interest of each of these specialities.

MCT has been shown to synthesize and secrete a number of substances which include thyrocalcitonin (CT), ACTH, histaminase, L-dopa decarboxylase, prostaglandins, serotonin, kallikrein, somatostatin, and melanocyte stimulating hormone.[2,3,4] There appear to be distinctive differences between the hereditary (familial) and sporadic varieties of MCT, and these distinguishing features recently were reviewed by Block, *et al.*[5]

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A classification of MCT has been based on its association with other endocrine neoplasms. This has led to the terms multiple endocrine neoplasia type II (MEN II) and type IIb (MEN IIb). MEN II usually is familial and inherited as an autosomal dominant trait, whereas MEN IIb, which is rare, occurs sporadically and has been reported only occasionally in families with MEN II. MEN IIb presents an MCT associated with bilateral pheochromocytoma, rarely a parathyroid abnormality, a very distinctive Marfan type of body configuration and multiple mucosal neuromas of the eyelids, lips, tongue and other mucosal membranes. There is an overgrowth of tissue between the nose and mouth. Pes cavus is common. When the neurofibromas and ganglioneuromas also involve the small bowel, they may produce gastrointestinal symptoms such as diarrhea. This diarrhea is different from that which is reputedly related to hormonal disturbances in MCT.[6]

Other terms which appear in the literature include Sipples syndrome—i.e., MCT, pheochromocytoma and parathyroid adenoma or hyperplasia—and MEA II or MEA IIb, which designates multiple endocrine adenomatosis and is merely another name for MEN II and IIb.

Pathology

MCT is a tumor of the calcitonin-producing thyroid C cells (parafollicular cells) of the thyroid gland. These C cells are derived embryologically from the neural crest and are part of the APUD cell system (Amine Precursor Uptake and Decarboxylation) because of their ability to take up biogenic amines and decarboxylate them. Radioimmunoassay and histochemical studies have shown that in the familial form of MCT there is a spectrum of C-cell proliferative disorders, with C-cell hyperplasia being the earliest recognizable lesion and the precursor of medullary carcinoma.[7,8,9]

Specific anticalcitonin immunohistochemical staining has allowed recognition of proliferation of CT-producing C cells within the thyroid follicles. C-cells were originally thought to be parafollicular, but staining techniques and ultrastructural studies revealed them to be intra-follicular. The next stage of C-cell proliferation is the formation of nodules of C-cells within the follicles (nodular C-cell hyperplasia). At this stage normal follicular architecture of the thyroid gland is still maintained. This stage is followed by progression and coalescence of the nodular C-cell aggregates with derangement of the thyroid architecture. A desmoplasmic reaction, focal calcification and occasional amyloid deposition with infiltrating C-cells accompanies this stage, and this heralds the onset of medullary carcinoma. The lesions at this time are often microscopic. Further enlargement of these lesions leads to grossly evident carcinoma histologically.

Residual nests of C-cell hyperplasia frequently are evident adjacent to tumor nodules. The tumor nodules consist of confluent nests of polygonal and slightly spindle-shaped cells with round to oval vesicular nuclei and abundant pale, finely granular cytoplasm. Assays of the tumor tissue reveal markedly elevated levels of calcitonin, histaminase, perhaps dopamine and dopamine precursors, ACTH, serotonin, prostaglandins, kallikrein and CEA, somatostatin and β-endorphins.[2-4,10]

There are differences pathologically between the hereditary and sporadic

TABLE 1

Feature	Hereditary (MEN II)	Sporadic
Cases	58 in 8 families	24
Male:female ratio	22:36	11:13
Others in family affected	Yes	No
Pathologic features	Bilateral in 40/41; associated C-cell hyperplasia	All unilateral; no C-cell hyperplasia
Other endocrine involvement	Part of MEN II syndrome	Not part of MEN syndrome
Parathyroid	9 in 4 families	0
Adrenal medulla	6 in 4 families	0
Ectopic ACTH production	2 in 2 families	0
Associated malignancy	pancreas in 3	0
Mucosal neuromas	0 in this series	0
Age of onset in cases prior to serum calcitonin assay	36 years (average) in 20 cases (20-67)	50 in 24 cases (22-74)
Curability by surgery based on serum calcitonin assay	23/23: nonpalpable (100%) 3/18 palpable (17%)	9/20 (45%) all palpable
Surgical approach	Total thyroidectomy	Total thyroidectomy not always necessary
Average life expectancy	50 yrs. in 20 cases	66 yrs. in 7 cases
Associated mental illness	14	3

form of MCT. The hereditary form is associated with C-cell hyperplasia and is bilateral; the sporadic form is usually unilateral with no C-cell hyperplasia (this may be related to onset of symptoms and lack of suspicion of tumor). The prognosis of MCT may be related to the amount of collagenous and amyloid stroma seen in the tumor. (This amyloid may represent stored calcitonin in the form of prohormone.)[11]

Clinical Features

The sporadic form usually is diagnosed by the appearance of a lump in the thyroid gland and the presence of excess serum calcitonin levels. If the tumor is very large, diarrhea may occur, probably related to the excess level of calcitonin. In the Rossi, *et al* series,[12] of 35 patients with non-familial MCT, 59% presented with a thyroid mass, 15% with a thyroid mass and neck nodes, distant metastasis in 9% and enlarged cervical nodes in 6%. Twelve per cent had clinically occult disease. The most common site of metastasis were, in order, the lung, liver, bone and brain. The ratio of women to men was 1.8:1.0. Median age for women was 52 years (21-75) and for men 61 years (33-76). Fifty-nine per cent of patients died of their disease. Prognosis was related to surgically occult lesions and in those in whom all tumor was removed, as well as age.

Hereditary familial MCT: Here the disease, as the name implies, is familial, females outnumber the males (but not as frequently as in thyrotoxicosis) and the disease usually is bilateral in the thyroid, accompanied by "C-cell hyperplasia."[5] The other very important characteristic is the association with other endocrine abnormalities of the parathyroid glands (10-25%) and the adrenal medulla (50%).[9] Tumors of these glands usually are bilateral and parathyroid adenomata or hyperplasia may occur (MEN, MEA II). Ectopic production of hormones such as ACTH, somatostatin, prostaglandins, etc. also have been described.

Malignancies other than MCT also occur in the familial form, and adenocarcinoma of the pancreas, Zollinger-Ellison syndrome, and a glucagonoma have been reported. The clinical manifestations of the familial MCT may be influenced by this excess hormonal production, and diarrhea, (prostaglandin calcitonin) hypercalcemia (despite excess calcitonin), flushing, sweating, palpitations and hypertensive crises. In MEN IIb, the disease occurs at an earlier age, metastasizes earlier and is associated with a higher mortality.[13] The unusual physiognomy characterized by multiple mucosal neuromas, puffy lips, myotonia and skeletal abnormalities makes this form of the disease clinically apparent.

The differences between the familial and the sporadic variety of MCT are shown in *Table 1* (from Block, *et al, Arch Surg,* 115:142-168, 1980).

TABLE 2

The Findings in 5 Patients with MEN IIb
(Norton JA, *Surg Clin North Am,* 59:109, 1979)

	Case 1	Case 2	Case 3	Case 4	Case 5
Sex	M	M	F	M	F
Race	W	W	B	W	W
Characteristic facies	+	+	+	+	+
Marfinoid habitus	+	+	+	+	+
Medullated corneal nerves	+	+	+	Unknown	+
Mucosal neuromas	+	+	+	+	+
GI disturbances	Diarrhea	Constipation then diarrhea	Constipation	Unknown	Constipation then diarrhea
Pheochromocytoma	--	--	--	+	+
Hyperparathyroidism	--	--	--	--	--
Age at diagnosis (yrs)	4	12	4	15	28
Nodes at surgery	+	+	+	+	+
Metastases	+	+	Unknown	+	+

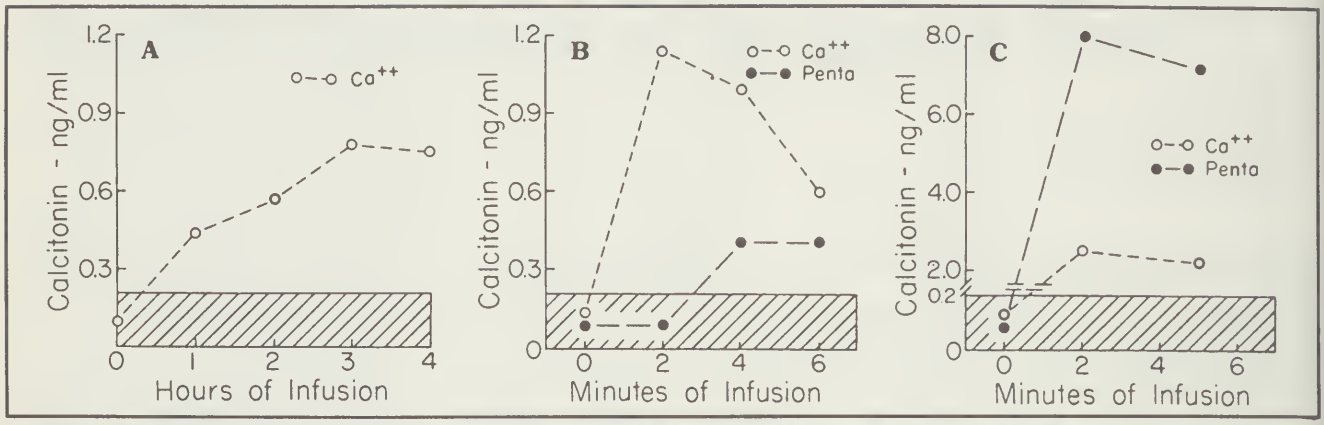


FIGURE 1: Secretion of calcitonin into plasma during provocative tests in patients with early familial medullary thyroid carcinoma. **A.** The 4-hour calcium infusion test with 15 mg/kg calcium (as gluconate) given in 500 ml saline. **B.** Short calcium infusion (2 mg/kg) and pentagastrin infusion (0.5 μg/kg). **C.** The same infusions as in B in another patient. In each graph, the striped area indicates the normal range for both basal and stimulated plasma calcitonin levels; with the particular assay system used, this level is below 0.2 ng/ml. Reprinted by permission from Baylin SB and Wells SA Jr: Management of medullary thyroid cancer. *In* Thyroid Cancer, Greenfield LD, Ed., West Palm Beach, Florida: CRC Inc., pp. 151-163, 1978. Copyright The Chemical Rubber Co., CRC Press, Inc.

Diagnostic Techniques

Needle biopsy: For an incidental lump in one lobe of the thyroid a fine needle aspiration biopsy is achieving excellent results. A high speed drill for larger specimens also may be used. When this expertise or techniques are unavailable, one may have to resort to open biopsy with lobectomy and examination of the lymph nodes. Unfortunately, the diagnosis in sporadic cases is only made after surgery, microscopic examination and re-exploration, and total thyroidectomy is then performed. In the familial inherited forms, the use of hormonal markers has allowed a more definitive approach.

Calcitonin assay: The measurement of serum iCT by RIA has been a great advance in the diagnosis and treatment of MCT.[14,15,16] The amount of calcitonin in the individual's tumor is correlated with the concentration of calcitonin in the serum. Thus, an increase or decrease of serum iCT indicates the effect of treatment. In the hereditary form of MCT, where individuals are asymptomatic with basal levels below 0.2 ng/ml, the diagnosis may well be missed by a single blood sample. In this situation, one must employ provocative tests of iCT secretion. The most commonly employed tests are those where

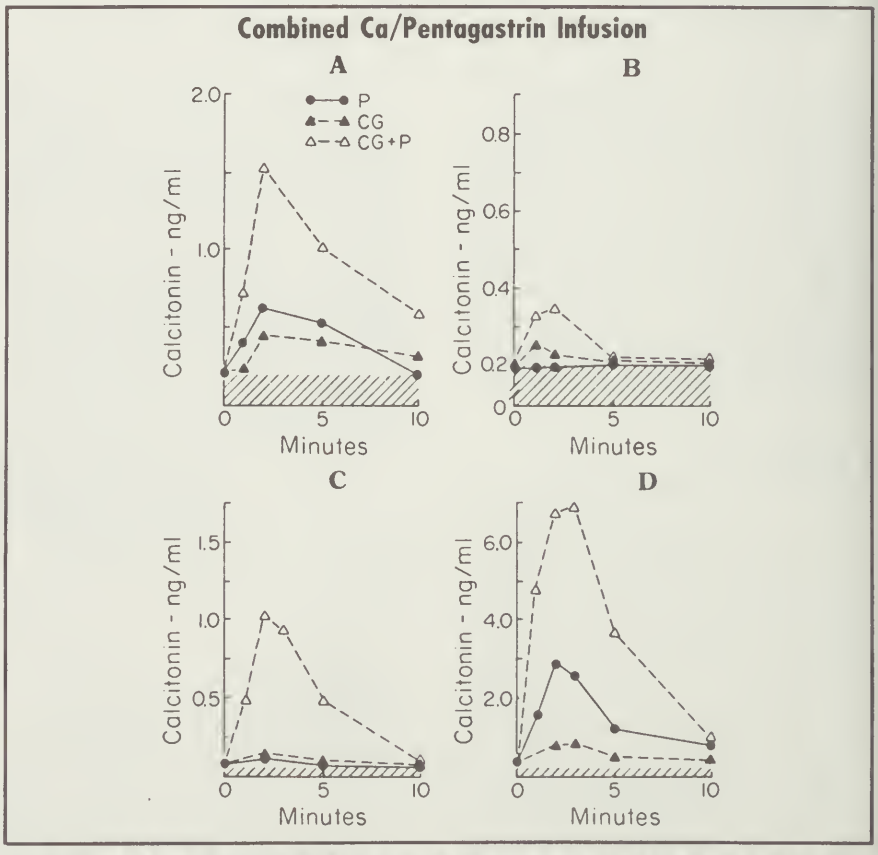


FIGURE 2: The results of provocative tests in four patients with localized medullary thyroid carcinoma. The short calcium and pentagastrin tests were performed exactly as outlined in Fig 1. In the combination test, the calcium was infused over the first 55 sec, and was followed by pentagastrin over the next 5 to 10 sec.

P = pentagastrin, C = calcium, CG + P = combined test with both agents.

pentagastrin or calcium are the stimulants.[17,18] Whiskey has also been publicized by European investigators but, besides its pleasurable effect, the response has not been uniform.

The standard pentagastrin test (Peptavlon, Ayerst) is given as an intravenous bolus of 0.5 μg/kg body weight over 5-10 seconds and serum samples at 0, +2, +5, +10, +15 minutes for determination of iCT. The calcium infusion test where calcium, 15 mg/kg body weight, was given intravenously over four hours and venous blood sampled hourly for four hours was standard procedure until recently, when this test was replaced by a one-minute infusion of calcium (2 mg/kg). This produces a peak response within one or two minutes after infusion is begun. The peak levels of iCT are reportedly higher than those reached with the four-hour infusion. The typical responses of iCT to these provocative stimuli are shown in *Figure 1.*

It should be noted that some patients respond more favorably to the short calcium infusion while others respond better to pentagastrin infusion. However, the best of both worlds can be obtained by combining the two tests,[17,18] i.e., a one-minute infusion of calcium followed immediately by a 5-10 second bolus of pentagastrin. The results of the combined test are shown in *Figure 2.* There is no increased risk of side effects with this combined test.

Even with the use of the combined provocative test, iCT levels may be just above 0.2 ng/ml and this may pose a therapeutic dilemma as regards familial MCT. The use of venous catheterization has helped resolve this problem, as values of iCT are abnormal after stimulation in the inferior thyroid vein in MCT. (This has also helped localize the MCT)[20] *(Figure 3).*

It has been noted that no difference has been observed between the hereditary and sporadic varieties of MCT in the magnitude of increase in iCT following calcium or pentagastrin stimulation for initial diagnosis or identifying the presence of metastasis. These re-

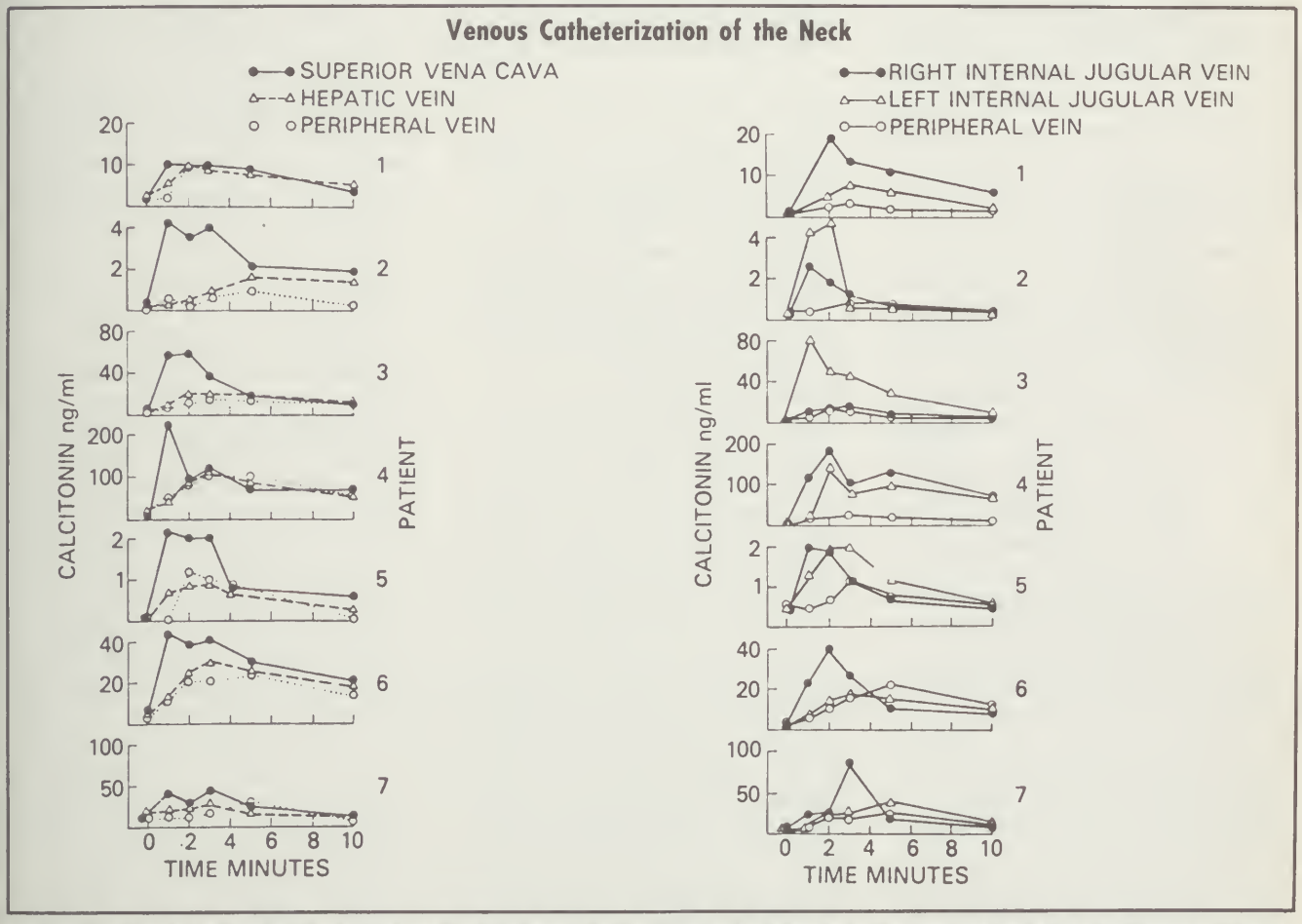


FIGURE 3A: Selective plasma calcitonin response to pentagastrin stimulation. All seven patients had earlier and higher peak calcitonin levels in the superior vena cava localizing medullary carcinoma of the thyroid to the neck or superior mediastinum in every case. Levels in the hepatic vein paralleled the peripheral vein suggesting the absence of hepatic metastases.

FIGURE 3B: Selective plasma calcitonin response to pentagastrin stimulation. In six patients medullary carcinoma of the thyroid was localized to the right or left side of the neck by earlier, higher peak calcitonin levels in the internal jugular vein on that side. In case 5 peak levels were equal bilaterally and no good localization was obtained.

sponses are probably related more to the bulk of the tumor tissue than to any other known factor. (One recent case report documents a discordance between serum iCT and tumor mass.)[21]

The use of iCT as regards surgical eradication and as a tumor marker: It has been shown that despite the heterogeneity of iCT secreted by MCT, levels of iCT are extremely important in following the course of patients before and after treatment and even delineating those at risk who will require elective surgery or even re-exploration of the neck.[5,14-16] In asymptomatic individuals with genetic predisposition to MCT, abnormal basal and/or stimulated iCT values are regarded as an indication for total thyroidectomy, even if only C-cell hyperplasia is found.[14] This procedure is also safe in young children. It should be noted that other neoplasms (breast, Zollinger Ellison syndrome, and lung) produce calcitonin, but the levels are not as high, nor is the molecular structure the same as in MCT.[5,22]

Serum iCT levels postoperatively provide a sensitive test to determine the completeness of removal of all medullary thyroid carcinoma tissue. Patients with nonpalpable lesions detected by screening of family members and treated by total thyroidectomy and central lymph node removal normalize their iCT after surgery. In 32 patients with medullary carcinoma of the thyroid[15] (16 hereditary and 16 sporadic cases) it was revealed that 1) postoperatively CT levels usually fell sharply, when the disease was thought to be cured, but the lowest levels may only occur one month to six years after surgery; 2) some patients with no clinical or radiological evidence of disease had high CT levels for a mean of three years of observation (selective neck venous catheterization for calcitonin determinations was not done in this series to exclude residual tumor tissue in the neck); 3) a marked rise of iCT preceded metastases and death; 4) patients with abdominal disease, particularly liver disease, had the higher iCT levels; and 5) patients who died from the disease had the highest iCT levels.

TABLE 3
Concentration of SRIF-LI in Serum of Normal and Tumor-bearing Rats

Serum	SRIF-LI	N	P value
	pg/ml		
Normal	105 ± 11	13	
MCT	816 ± 227	13	<0.02

Results are given as mean ± SE.
N is the number of animals.

Despite this report, in general an increased iCT level after operation reflects persistent disease and, if no evidence of distant metastasis is found, reoperation is indicated if adequate neck operation has not been performed.[5,9,12] In these instances, selective venous catheterization with measurement of iCT should be very helpful. If serum iCT remains elevated in an asymptomatic patient with no gross evidence of disease and despite investigation, observation is advised as gradual decrease of iCT over months and years can occur.[5,14]

Other tumor markers of MCT: Urine iCT has been found by one group of workers to provide an earlier indication of disease, i.e., patients with subclinical MCT, than basal serum iCT or even stimulation tests.[23] This method requires further evaluation.

In 1976, Ishihawa and Hamada demonstrated elevated levels of serum carcinoembryomic antigen (CEA) in a series of patients with MCT, while patients with other types of thyroid neoplasia and benign thyroid disease had normal levels of CEA.[24] CEA has been demonstrated consistently by immunoperoxidase staining to be present in the tumor tissue itself.[25,26] Since then a number of reports have appeared which have shown that serum CEA concentrations correlated both with the severity of the disease and the extent of iCT elevation.[26,27] This, however, does not apply to C-cell hyperplasia, so that secretagogue stimulation of serum iCT still remains the preferable test in MCT.[27]

Other substances secreted by MCT and found on immunohistological staining of the tumor tissue, which have not been consistently useful in diagnosis or as tumor markers, include prostaglandins, biogenic amines, ACTH, β-endorphins and somatostatin.[10] We recently demonstrated in patients with MCT that basal and stimulated somatostatin values were no different from controls.[3] In the WAG/RIJ rat, however, which has a genetic predisposition to develop medullary carcinoma of the thyroid, elevated levels of serum somatostatin which is biologically active are found[28] (see *Table 3*). Recently Saito and Saito found increased somatostatin levels which correlated with serum iCT values before and during treatment in four patients with MCT.[29]

Other endocrine tumors associated with MCT:

Pheochromocytoma: Evidence of a pheochromocytoma may precede or occur concurrently or after presentation of MCT and, although the incidence is greater in MEN IIA (50%), it can occur in the sporadic MCT. Screening with urinary VMA estimations is advised in all patients with MCT. De Lellis, *et al* have reported that an increased ratio of epinephrine to norepinephrine in the urine predicted adrenal medullary hyperplasia, diffuse or nodular, prior to clinical manifestations.[30] It also has been reported that patients with MEN IIA seem to manifest their pheochromocytomas clinically or biochemically at a particular age, i.e., between 30 and 50 years of age.[9] Pheochromocytoma may be bilateral in the MEN IIA.

Hyperparathyroidism: 10-25% incidence in MEN II A. Here, as with pheochromocytoma, it may precede, be simultaneous, or succeed the presentation of MCT. The most important biochemical finding is a raised serum

calcium, although it has been suggested that a reduced PTH suppressibility following a calcium infusion may indicate early hyperparathyroidism.[31] The hyperparathyroidism may be either hyperplasia or adenoma. In MEN IIb a parathyroid abnormality usually is absent.[12,13] Even in MEN IIA the hyperparathyroidism usually is mild and frequently is identified only at operation by finding enlarged or hyperplastic parathyroid glands.

The immune response to tumor antigen has been studied in patients and non-affected family members with MCT, and a cellular response has been found.[32] The relevance of this finding needs to be further investigated.

Treatment and Prognosis

It is agreed that surgery to the neck is the best form of treatment of MCT, but an assessment of the real benefit of aggressive and prophylactic surgery depends upon knowledge of the natural history of MCT and the prognosis of those members of the family who have not been treated. No accurate figures of these determinants are available, but generally it is accepted that MEN IIb is the most aggressive form and that the hereditary type has poorer survival than the sporadic form.[13] In addition, the extent of the disease, the presence of lymph node metastasis, elderly age and inability to remove all the tumor at operation negatively influences survival.[5,9,11,12,14,17] Numerous series document survival of patients with persistently elevated iCT levels, positive subcutaneous lymph nodes, and even metastasis for years after radical neck operation. This makes prognosis and even the choice of therapy difficult to evaluate.

Before undertaking neck surgery in patients with suspect or proven MCT, the patients should be screened for pheochromocytomas or adrenal medullary hyperplasia. If the VMA values, etc., are elevated, then this problem must be treated first. I will not dwell on the pre-operative or post-operative management of such patients.

Surgical approach to MCT: In the hereditary form, the treatment of choice is total thyroidectomy, as foci of C-cell hyperplasia coexist in the thyroid. This is combined with removal of "suspicious" lymph nodes as well. In the sporadic form, the operation may be a total thyroidectomy or lobectomy, depending upon the surgeon's or institution's experience and preference.

The problem of the choice of operation in the sporadic form has been greatly aided by selective venous catheterization and assaying iCT after pentagastrin and calcium stimulation. Selective venous catheterization postoperatively has also allowed prediction of surgical cure in all types of MCT and localization of recurrence or metastases after operation and assisting repeated surgery.

Palliative therapy: Aggressive—External radiotherapy: Poor results are obtained, as MCT is usually radio-resistant.[13,17,33] Chemotherapy with Adriamycin also has been tried, but again the results are very disappointing.[34,35] If lung metastases are present, lobectomy can be attempted if it is a single large mass. When liver metastases have occurred, hepatic artery embolization has been done, but this technique needs further evaluation.[17]

Passive: Observe and treat symptomatically, e.g., nutmeg or prostaglandin inhibitors for the diarrhea.[36] This watchful policy has been the treatment of choice of many physicians since the course of the disease is unpredictable and may last up to 20 years.

Follow-up: Should be lifelong with iCT determinations serially performed.

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Look-Alike and Sound-Alike Drug Names

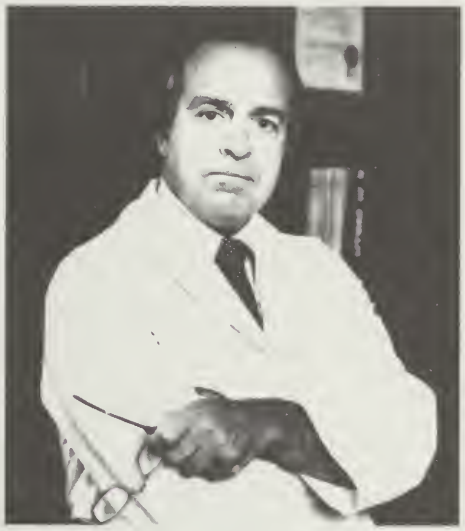
BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	DAUNORUBICIN	DOXORUBICIN
Category:	Antineoplastic	Antineoplastic
Brand Name:	Cerubidine, Ives	Adriamycin, Adria
Generic Name:	Daunorubicin HCl	Doxorubicin HCl
Dosage Forms:	Powder for Injection	Injection

	TRIAMTERENE	TRIMIPRAMINE
Category:	Diuretic	Antidepressant
Brand Name:	Dyrenium, SKF	Surmontil, Ives
Generic Name:	Triamterene	Trimipramine Maleate
Dosage Forms:	Capsules	Capsules

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Notes from

The Royal College of Surgeons of England

AUSTIN L. GARDNER, M.D.
Indianapolis

"The Royal College of Surgeons referred the subject to a committee which reported adversely upon Miss Nightingale's forms."

Thus begins a review of the drive to attain high standards of record keeping.

Florence Nightingale had developed a passion for records and had prepared model hospital forms and classified lists of disease which "would enable mortality in hospitals and the mortality from particular diseases, injuries, and operations to be ascertained with accuracy." Pilot schemes were introduced in St. Barts, St. Mary's, and St. Thomas' in 1859. Sir James Paget observed that 40% of the causes of death were ascribed to exhaustion. Miss Nightingale invited Sir James to a meeting to detail causes of death after operations but the initiative was lost in committee, according to the lead editorial by A.J.H. Rains.

* * *

The Vicary Lecture by Dr. Bertram Cohen deals with two paintings of King Henry VIII and the Barber Surgeons by Holbein. The unbroken possession of 440 years are reviewed including a consideration by Samuel Pepys to buy one of the paintings in 1668 for £ 200 (200 pounds). (The sale did not go through because of fire damage two years earlier in the great fire of London.)

The main thrust of the lecture was to put forth the idea that one of the paintings had been altered, probably on orders of former presidents seeking to bring self-glory by having had their faces inserted in the painting with Henry VIII. Strong circumstantial evidence was presented to support the claim.

* * *

The Bradshaw Lecture by H.H.G. Eastcott of St. Mary's was a scholarly portrayal of "The Total Care of the Arteriosclerotic Patient." He noted the rise in numbers of deaths from ischemic heart disease and the recent increase in the Third World incidence of vascular disease which suggested the coming of an epidemic.

Virchow appreciated the significance of stasis, altered coagulability, and the damage to the vascular wall as separate but synergistic factors in thrombosis. The arteriosclerotic lesion has been shown to be affected by mechanical injury to the endothelium, the activity of prostaglandin elaborated by the endothelium, monoclonol cell type, and by hypertension (marked decrease in stroke and myocardial infarction by controlling blood pressure).

The epidemiology and surgical care of the patient with coronary artery disease, lower limb ischemia and carotid stenosis were discussed from the perspective of a pioneer in the field.

Mr. Eastcott pleads for improvement in the prevention and early detection and rigorous management of peripheral vascular disease.

* * *

Sir Reginald Murley delivered the Hunterian Oration on "Peace and Strife in Hunter's Time" and a lesson in European history unfolded, beginning with the life of Marlborough who led the English at Malplaquet where 20,000 men lost their lives in a single day. The Duke died two years before Blenheim Castle was completed in 1722. Robert Walpole became the first Prime Minister as George I did not attend cabinet meetings. All this unfolded in Hunter's Time.

* * *

Other fine reviews in the January issue of the Annals include "A Decade of Missile-Induced Vascular Trauma," a review of Professor Calne's work on pancreatic transplantation, and an experimental evaluation of the performance of low-pressure endotracheal tube cuffs.

The information in this review is based on the January 1982 issue of the Annals of the Royal College of Surgeons of England.

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J-9043-4 July 1981

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AUXILIARY REPORT

Karen (Mrs. Robert M.) Schleinkofer
President, ISMA Auxiliary

Hulda Classen
President-Elect

The Drake Hotel in Chicago was the scene of the 1982 AMA-A Leadership Confluence. October 10, 11 and 12 were the dates that state presidents, presidents-elect, membership chairmen and selected county presidents-elect from all 50 states met for an intensive leadership seminar.

Indiana was represented by Karen Schleinkofer, president; Hulda Classen, president-elect; Judy Koontz, membership chairman; Carolyn Tyndall, Allen County; Helen Snyder, Delaware-Blackford; Linda Kinman, Knox County; Jackie Kalsbeck, Marion County; Alice Backs, St. Joseph County; Cookie Smith, Vanderburgh-S.W.; and Rosanna Iler, our ISMA liaison.

The sessions began at 8 a.m. on Sunday and moved rapidly through each day. Various formats were used from lectures to workshops to consultations.

We found the membership workshop one of the most exciting. Dr. Eva Schindler-Rainman led us through several sessions of "brainstorming." Why belong? One reason—it gives us such a tremendous opportunity to develop our leadership skills.

Other seminars were—Parliamentary Procedure, Cooperation with Medical Societies, Public Relations, Working with Other Organizations, Time Management, Legislation How-To's, Intergenerational Programming for the Aging: A Link Between Generations, Drug Use Prevention, Smoking Among Children and Adolescents, Child Abuse, Mid-Life Problems in the Medical Family, and Parenting.

At the opening dinner, Dr. William Y. Rial, president of the AMA, was the keynote speaker. Hugh McCahey was the speaker at one breakfast meeting. He encouraged us as leaders to listen with our ears, eyes, touch—to be aware of the spoken words but also comprehend the body language.

Our own Marjorie Smith gave a slide presentation, "This is Your AMA Auxiliary," at the Monday luncheon. At the Tuesday luncheon we had an expressive puppet show, "Kids on the Block." It was a presentation of children with various disabilities.

We had one dinner where we divided in smaller groups. The presentations were less formal. We became better acquainted with our counterparts in other areas.

We had so much presented to us in these three days. We left Chicago very excited and optimistic, a bit puzzled but not overwhelmed—ready to accept the Leadership Challenge for our state and our counties.

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FUTURE FILE

Internal Medicine Course

"The Year in Internal Medicine," the 19th Annual CME Course of Northwestern University Medical School, is oriented for internists, family practitioners and general practitioners. It will be held Jan. 26 to 29 at the Chicago campus of the Medical School.

For more information, write or phone Paula Puntenney, CME, Northwestern University Medical School, 301 E. Chicago Ave., Chicago 60611, (312) 649-8533.

Colorado Meetings

The North American Medical/Dental Association announces its 14th Annual Conference and Seminar plus four more exciting meetings. Medical and dental surgical subjects of interest to plastic surgeons, otolaryngologists, dentists, nurses, pediatricians, family practitioners and speech pathologists will be featured in a series of meetings at Snowmass and Vail, Colo., from the last of January through February and March 1983. The professional meetings are scheduled for nonskiing hours to allow outdoor activity for attendees and their families. For full particulars, write the Association at 7901 Westminster Ave., Westminster, Calif. 92683, or phone (714) 891-5205.

Hyperbaric Oxygen Conference

The Eighth Annual Conference on Clinical Applications of Hyperbaric Oxygen will meet June 8-10 at Memorial Hospital Medical Center, Center for Health Education, Long Beach, Calif.

For information, contact Michael B. Strauss, M.D., Memorial Hospital Medical Center, 2801 Atlantic Ave., Long Beach, Calif. 90801, (213) 595-3613.

Pathology Meeting Slated

The United States-Canadian Division of the International Academy of Pathology will hold its Annual Meeting from Feb. 28 to March 4, 1983, at the Atlanta Hilton, Atlanta, Ga.

For details write Dr. Nathan Kaufman, 1003 Chafee Ave., Augusta, Ga. 30904, (404) 724-2973.

Behavioral Neurology

Vanderbilt University School of Medicine will conduct its First Symposium on "Behavioral Neurology: Higher Cortical Functions and the Brain" on June 2 to 4, 1983. For full information write to Mrs. Joan Sullivan, Vanderbilt University School of Medicine, Nashville, Tenn. 37212.

2-Week Cytopathology Course

Cytopathology will be the subject of an intensive postgraduate refresher course at The Johns Hopkins University School of Medicine April 18 to 29, 1983. It is designed for pathologists who are certified or qualified by or for the American Board of Pathology (PA). Credit hours are 125 in AMA Category 1. A loan set of slides with texts will be sent to each participant for home study in March and April prior to the course. Apply before Feb. 2, 1983, to John K. Frost, M.D., The Johns Hopkins Hospital, Baltimore, Md. 21205.

Adolescent Medicine

"Adolescent/Young Adult Medicine" will be the subject of a CME conference from Feb. 23 to March 1, 1983, at the Wailea Beach Hotel, Maui, Hawaii, sponsored by the Hurley Medical Center, One Hurley Plaza, Flint, Michigan, 48502. Certified for 20 hours credit. Write the Center or call (313) 766-0142.

Thermography, Breast Screening

Flexi-Therm, Inc. will sponsor a seminar on Thermography and Breast Screening from 7:30 a.m. to 5 p.m. on Friday, Jan. 21, 1983, at the Chicago Marriott O'Hare Hotel (Airport). The fee for physicians is $150. Contact Paula Hobbins, P.O. Box 5368, Madison, Wisc. 53705—Phone (608) 273-0362.

The *Journal of the American Medical Association* publishes a list of CME courses for the United States twice yearly. The January listing features courses offered from March through August; the July listing features courses offered from September through February.

Kentucky CME Courses

The University of Kentucky College of Medicine announces the following CME courses, all of which will be held at the Hyatt Regency Hotel, Lexington, Ky., except where indicated:

Trauma—The Disease of the 80s, Dec. 17-18, 1982;

14th Family Medicine Review—Session I, Feb. 20-25;

Advanced Cardiac Life Support Provider-Instructor Course, March 11-13, University of Kentucky Medical Center, Lexington;

12th Annual Medical Aspects of Sports Symposium: Prevention and Treatment of Athletic Injuries, March 31-April 1;

Frontiers in Endocrinology and Metabolism, April 15-16;

Diagnosis and Treatment of Common Human Tumors, April 21-23.

For additional information, contact Frank R. Lemon, M.D., College of Medicine, University of Kentucky, Lexington 40546—Phone (606) 233-5161.

Disabled Physicians Co-op

A cooperative membership organization of physically disabled physicians is being formed by the St. Paul-Ramsey Hospital Medical Education and Research Foundation at 640 Jackson St., St. Paul, Minn. 55101.

The object is to register as many physically disabled physicians as possible and thereafter to match the membership, including new members, in a mutual exchange of information relating to ameolioration of the handicaps and improvement of disabilities to the end that an active medical practice may be pursued.

All correspondence is confidential. Later, a directory of the registrants will be printed and mailed to all physicians listed therein. All physicians who are practicing despite a physical handicap are invited to register.

Candidates for nutritional therapy..

10,000,000 alcoholics. Ethanol may produce many effects that together bring about nutritional deficiencies, so that alcoholism affects nutrition at many levels.[1]

25,500,000 geriatric patients. The older patient may have some disorder or socio-economic problem that can undermine good nutrition.[2]

23,500,000 surgic patients. Nutritional stat can be compromised by the trauma of surgery; and some operations interfere with the ingestion, digestion and absorp tion of food.[3]



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Indications: Prophylactic or therapeutic nutritional supplementation in physiologically stressful conditions, including conditions causing depletion, or reduced absorption or bioavailability of essential vitamins and minerals; certain conditions resulting from severe B-vitamin or ascorbic acid deficiency; or conditions resulting in increased needs for essential vitamins and minerals.
Contraindications: Hypersensitivity to any component.
Warnings: Not for pernicious anemia or other megaloblastic anemias where vitamin B_{12} is deficient. Neurologic involvement may develop or progress, despite temporary remission of anemia, in patients with vitamin B_{12} deficiency who receive supplemental folic acid and who are inadequately treated with B_{12}.
Precautions: *General:* Certain conditions may require additional nutritional supplementation. During pregnancy, supplementation with vitamin D and calcium may be required. Not intended for treatment of severe specific deficiencies. *Information for the Patient:* Toxic reactions have been reported with injudicious use of certain vitamins and minerals. Urge patients to follow specific dosage instructions. Keep out of reach of children. *Drug and Treatment Interactions:* As little as 5 mg pyridoxine daily can decrease the efficacy of levodopa in the treatment of parkinsonism. Not recommended for patients undergoing such therapy.
Adverse Reactions: Adverse reactions have been reported with specific vitamins and

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5,000,000 hospital patients with infections.[4] Many are anorectic and may have a markedly reduced food intake. Supplements are often provided as a prudent measure because the vitamin status of critically ill patients cannot be readily determined.[3]

The incalculable millions on calorie-reduced diets. Patients ingesting 1000 or fewer calories per day could be at high risk because this intake may not supply most nutrients in adequate amounts without supplementation.[5]



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highly acceptable to patients, has virtually no odor or aftertaste and is economical. And its "Rx only" status means more physician involvement, better patient compliance.

References: 1. Shaw S, Lieber CS: Nutrition and alcoholism, chap. 40, in *Modern Nutrition in Health and Disease*, edited by Goodhart RS, Shils ME. Philadelphia, Lea & Febiger, 1980, pp. 1220, 1237. 2. Watkin DM: Nutrition for the aging and the aged, chap. 28, in *Modern Nutrition in Health and Disease, op. cit.*, p. 781. 3. Shils ME, Randall HT: Diet and nutrition in the care of the surgical patient, chap. 36, in *Modern Nutrition in Health and Disease, op. cit.*, pp. 1084, 1089, 1114. 4. Dixon RE: *Ann Intern Med 89* (Part 2): 749-753, Nov 1978. 5. Committee on Dietary Allowances, National Research Council: Recommended Dietary Allowances, ed 9. Washington, National Academy of Sciences, 1980, p. 13.

minerals, but generally at levels substantially higher than those in Berocca Plus. However, allergic and idiosyncratic reactions are possible at lower levels. Iron, even at the usual recommended levels, has been associated with gastrointestinal intolerance in some patients.

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THE MULTIVITAMIN/MINERAL FORMULATION

NEWS NOTES

Ronald McDonald House Opens

Indiana's Ronald McDonald House, 1235 W. Michigan St., Indianapolis, at the Indiana University Medical Center, was officially opened in October.

The new $1.8 million facility, one of the largest in the country, is the 40th Ronald McDonald House to open, according to Our House, Inc., the sponsoring organization.

The house is intended for use by the families of children who are patients at Riley Children's Hospital as well as other area hospitals. An entire family can stay at the house for $7 per night, a fee which is reduced or waived in hardship cases.

Room requests, available on a first-come, first-served basis, are being handled through the admissions office of the I.U. Hospitals, Room 179C, 1100 W. Michigan St., Indianapolis 46223.

I.U. Cancer Research Center

A new basic clinical cancer research center is being organized by the I.U. School of Medicine and the Richard L. Roudebush VA Medical Center. Ronald Hoffman, M.D., Yale University School of Medicine, has been chosen to head the research, which will be under the direction of Dr. Walter Daly, chairman of the Department of Medicine.

Dr. Daly announced, "This center will do research on basic aspects of human cancer in order to facilitate treatment of a broad spectrum of cancers and will afford the most modern therapy of cancer available."

The center will be titled the Elks Cancer Research Center in recognition of the support given to clinical research at the school for many years by the Indiana Benevolent and Protective Order of the Elks.

$150,000 for Patient Instruction

Bristol-Myers has contributed $150,000 in support of the American Medical Association's Patient Medication Instruction (PMI) program. The program will originate with instruction sheets for 20 commonly prescribed drugs, to be designated by the generic names. Physicians may give the PMI sheets to patients in addition to oral instructions. The AMA plans to prepare sheets for 40 more drugs for use in 1983 and 40 more for 1984.

Prescription Drug Abuse

The AMA is mounting a major initiative to combat prescription drug abuse.

At an AMA-sponsored meeting, 20 organizations representing prescribers, dispensers, regulators, and enforcement officers established a steering committee to serve as a fulcrum for national action on the problem.

A model system will be developed for states to use in analyzing data to pinpoint physicians who over-prescribe controlled drugs. The model will be available to state agencies next year through state medical associations.

The steering committee also is supporting a series of state and regional conferences on the misuse, abuse, and diversion of prescription drugs. For more information, contact Mental Health Program, AMA headquarters.

Orphan Drug Bill Passes

The House of Representatives passed, without a recorded vote, the Orphan Drug Act (HR 5238) on Sept. 28. The bill, as it passed the House, provides a tax credit equal to 90% of the cost of conducting human clinical investigations of orphan drugs—drugs used to treat rare diseases that afflict comparatively few people so that it is not commercially profitable for drug companies to develop and market such drugs.

The bill grants exclusive marketing rights on orphan drugs that are not subject to patent protection for a period of seven years. The bill also encourages the use of open protocols to allow physicians access to these drugs during testing to treat patients. Finally, the legislation establishes an Orphan Products Board to coordinate the activities of the federal agencies involved in drug research and evaluations.

In passing the bill, the Senate knocked out the tax credit, replacing it with grants to fund research. The Senate also added provisions to fund Home Health Agencies, protecting the Community Health Center program; to require a study of the effects of radiation on persons in the west; and to grant S. D. Searle an extra five years of patent protection for aspertaine.

CME Quiz . . .

CONTINUED FROM PAGE 957

8. Methylphenidate is classified as "effective" with ADD with hyperactivity as an integral part of a total treatment program. All the following statements are true about methylphenidate except _____.
   a) It is given in an individually titrated amount between 5 mg. and 60 mg. daily or at 0.25 mg./kg/d.
   b) It is given every four hours when the child needs it most: during school hours and, often, in the evening hours.
   c) "Drug holiday" is of little benefit for those children who are hyperactive both at home and in school.
   d) Often serious side effects such as growth suppression and potential later substance abuse forces patients to discontinue methylphenidate.
9. All of the following statements are true about ADD except _____.
   a) Hypnotic-sedatives such as barbiturates have been found to be beneficial in treatment of ADD.
   b) Psychostimulants, such as amphetamines and pemoline, are drugs of choice if methylphenidate has failed to produce a favorable result.
   c) Neither drug treatment alone nor psycho-educational intervention alone could produce an optimal improvement in ADD children.
   d) Beneficial results of the stimulants have been found to be highly correlated with a stable family environment.
10. All of the following statements are true about ADD except _____.
   a) It is estimated that more than half of hyperactives continue to have symptoms in adult life.
   b) In practice, children who are hyperactive outgrow it as they reach puberty and become well adjusted.
   c) In practice, children who are hyperactive also are usually socially disruptive, aggressive, or antisocial.
   d) It has been reported that one-third of reading disorder children also show conduct disorder and one-third of conduct disorder children also show reading disorder.

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In this era of rising fixed costs, the dairy industry is dependent upon the increase in milk production from each cow for its profitability. Artificial insemination was primarily responsible for the increase in milk production averages from less than 6,000 pounds per year during the 1950's to more than 13,500 pounds per year in 1982. Today a new procedure, **embryo transfer, enables a cow to have up to 60 offspring a year.** Obviously, the donor cows chosen for these intensive breeding programs must be of the most prized pedigrees and high milk-producing capability. These superior registered Holstein cows typically produce more than 20,000 pounds of milk per year with 4% butterfat content and constitute less than 1/4 percent of all Holsteins. The high demand for these cows establishes their value from $100,000 to more than a million dollars each.

Incentives were built into the current tax laws to encourage investors to purchase these elite animals and put them into a breeding program which will maximize their potential for producing offspring and therefore increase the dairy industry milk production averages.

The purchase of a registered Holstein cow is considered as capital equipment **depreciable using the ACRS method** for 5 year equipment and additionally entitled to a **10% investment tax credit.** The purchase can be made with 25% down with the balance financed over three years at a 15% annual interest rate.

The purchaser of one of these superior Holstein cows would probably want to contract with experts for the care, feeding, management and breeding of these unique cows. **A management contract can be purchased which includes professional care and a complete insurance policy.** Additionally, an Embryo Transfer Program can be arranged which will enable the breeding goals of the cow owner to be achieved. All services are deductable as business expenses and some contracted services can be accrued as tax deductions prior to the actual payment.

You will find that owning a superior registered Holstein cow not only provides a good return on investment and tax advantages but is a good hedge against inflation as well.

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NEWS NOTES

Here and There . . .

. . . **Dr. Richard M. Sandefur, Jr.** and **Dr. Myles J. A. Grant,** both of Evansville, were among panelists who recently conducted a "Women's Health Matters Seminar" at St. Mary's Medical Center.

. . . **Dr. Otis R. Bowen,** former Governor of Indiana, is chairman of this year's State Christmas Gifts Program.

. . . **Dr. Steven R. Gable,** a South Bend neurologist, was the guest speaker during a recent meeting of the Alzheimer's Family Support Group of Niles.

. . . **Dr. Michael A. Borkowski,** a South Bend rheumatologist, participated in an October lecture series on arthritis in South Bend.

. . . **Harold Hefner,** executive director of the Marion County Medical Society, is among new directors of the Indiana Society of Association Executives.

. . . **Dr. Alvin J. Haley** of Indianapolis has been elected to a three-year term on the Board of Directors, American Academy of Family Physicians.

. . . **Dr. Charles Fisch** of Indianapolis will be a member of the teaching faculty during the 14th Bethesda Conference to be held Jan. 8-9. He will discuss "Limitations of Routine ECG."

. . . **Dr. Marc A. Levin** of Hammond has been named a diplomate of the American Board of Neurological Surgery.

. . . **Dr. Ray C. Smith, Jr.** of Indianapolis has been elected president of the American Cancer Society, Indiana Division. **Dr. Richard G. Huber** of Bedford was elected vice-president.

. . . **Dr. Daniel H. Spitzberg** of Carmel has been named 1982 Honor Award recipient by the American Academy of Ophthalmology. He was recognized for 10 years of teaching ophthalmology.

. . . **Dr. Edward L. Broomes** of East Chicago has been granted a patent for his anti-snoring collar device, which he developed after discovering that patients stopped snoring when they wore cervical collars while sleeping.

. . . **Dr. Philip N. Eskew** of Carmel has been elected vice-chairman of the Indiana Section, American College of Obstetricians and Gynecologists.

. . . **Dr. Thomas E. Lunsford,** an Indianapolis neurologist, was guest speaker at a recent meeting of the Parkinson Awareness Association in Indianapolis.

. . . **Dr. Edward R. Gabovitch,** an Indianapolis rheumatologist, discussed the treatment of arthritis during a recent meeting of the Arthritis Foundation in Indianapolis.

. . . **Dr. Charles G. Griffin,** a Valparaiso surgeon, addressed a combined meeting in September of the Porter County Cancer Society Board and "Make Today Count," a mutual support group which the society sponsors.

. . . **Dr. Frederick O. Mackel** is now president of the Lutheran Hospital medical staff, Fort Wayne. **Dr. William C. Ashman** is president-elect.

. . . **Dr. A. Alan Fischer** of Indianapolis has been appointed by the State Health Commissioner to chair a committee writing new rules governing nursing homes. The rules will be passed on to the Indiana Health Facilities Council for approval.

. . . **Dr. Robert C. Keyes** of Fort Wayne has been chosen medical director of the Three Rivers Ambulance Authority.

. . . **Dr. Norman C. Estes** of Indianapolis has been elected president of the Marion County Unit of the American Cancer Society. **Dr. Paul D. Williams** of Indianapolis will serve as vice president.

. . . **Dr. Joseph F. Milan** of Bloomington has been elected to the board of directors, Monroe County State Bank.

. . . **Dr. David A. Frieske** of Valparaiso has been named medical director of a small detoxification center at Porter Memorial Hospital.

. . . **Dr. Stuart E. Harlowe** of New Albany has been promoted to brigadier general in the U.S. Army Reserve. He is now commander of the 2291st Army Reserve Hospital in Columbus, Ohio.

. . . **Dr. Steven P. Grossnickle,** a Warsaw ophthalmologist, discussed dyslexia during the October meeting of the Kosciusko Area Association for Children with Learning Disabilities.

. . . **Dr. Robert J. Steele,** an Indianapolis oncologist, addressed an October meeting of "I Can Cope" in Indianapolis.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Bankoff, Milton L., Michigan City
Belcher, Alan D., Marion
Bullington, George E., Franklin
Edwards, Mary K., Danville
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1982 CONVENTION REPORT



133rd session of the House of Delegates.



Dr. Charles D. Egnatz, Tenth District trustee (left), and Dr. Nicholas L. Polite listen during House proceedings.



Dr. Shirley T. Khalouf, vice speaker of the House, is flanked by (from left) Drs. O'Neill, Allen, Lukemeyer and Knote.

PHOTOS BY JOYCE WOLF



Dr. Gilbert Gutwein and Dr. George M. Underwood were among delegates representing Tippecanoe County.



Dr. Lloyd L. Hill, chairman of the Commission on Constitution and Bylaws, addresses members of Reference Committee 2, which considered matters pertaining to the Constitution and Bylaws.



Dr. Paul Siebenmorgen, chairman of the Board of Trustees, leads a Board meeting.



Governor Robert D. Orr addressed the House of Delegates.



Retiring First District alternate trustee, Dr. E. DeVerre Gourieux of Evansville, is presented a recognition plaque by Dr. Paul Siebenmorgen, chairman of the Board.



Dr. Richard L. Reedy of Yorktown, Eighth District trustee, poses with Sen. Richard G. Lugar after the Senator's IMPAC luncheon address.



Dr. Martin J. O'Neill (right), outgoing president, administers the oath of office to newly elected or re-elected ISMA officers.



Derrik Thomas of WRTV (Ch 6), Indianapolis, interviews Dr. O'Neill.



Howard Grindstaff, ISMA field representative, responds to a Resolution of Commendation (page 955) appointing him an honorary member of ISMA.



Past Presidents' luncheon. At right is Dr. Guy Owsley of Hartford City, 78, ISMA's oldest living past president (1959-61).



More than two dozen technical exhibitors participated in this year's convention.



Delegate ribbons await their owners at the ISMA Registration Desk, where 933 physicians and guests signed in.



The ISMA Section on Neurological Surgery listens to a discussion on Carotid Surgery conducted by Dr. Robert M. Crowell of Chicago.



New members of the ISMA Fifty Year Club.



Dr. Olga Bonke Booher of Indianapolis presents the Fifty Year Club response. Her remarks appear on page 924.



An Oktoberfest buffet sponsored by the Marion County Medical Society was well received.



Dr. Ralph W. Stewart of Vincennes (right) joined several other physicians who met with Indiana University medical students during the third annual medical student reception.



Dr. O'Neill (center) and Mrs. Karen Schleinkofer, Auxiliary president, present a check for AMA-ERF to Dr. Steven C. Beering, dean of the I.U. School of Medicine. (Details appear on page 924.)



Dr. H. Shidnia discusses his exhibit, "Advances in Cancer Management," with an interested physician.



Mrs. John V. Osborne of Muncie displays jewelry being sold by the Auxiliary to benefit the Indiana AMA-ERF program.



President-Elect John A. Knote (right) presents a plaque in recognition of service to outgoing president, Dr. Martin J. O'Neill.



Dr. Jere D. Guin (right), Kokomo dermatologist, discusses his exhibit, "Finding the Cause of Drug Eruptions," with interested physicians.



Dr. and Mrs. O'Neill greet well wishers during the President's Reception.



Dr. O'Neill and his family. From left, Martin J. (Chip) O'Neill, M.D., Lynn O'Neill, Steve O'Neill, Elke O'Neill, Dr. O'Neill and his wife Maude Alice, Michael O'Neill, M.D., Gray O'Neill, Thomas O'Neill, M.D., Terry O'Neill and Eugene O'Neill.



Donald Foy, ISMA executive director, and Dr. Davis W. Ellis, Sixth District trustee, (foreground), chat during the President's Reception.

Jenny Smith, R.D.
Print (Series)

The announcement Jenny received informing her that she'd won an ISMA Journalism Award came as a total surprise to her. She didn't even know her articles had been entered! ISMA is pleased, however, that Jenny's co-worker at Huntington Memorial Hospital took the initiative to enter Jenny's articles on weight control, published as a weekly feature in the Huntington Herald-Press.

A Registered Dietitian with bachelor's and master's degrees from Ball State University, Jenny does have some journalism experience: she was sports editor for her high school newspaper in Fort Wayne. While still in college Jenny developed her interest and expertise in weight control through participation in a Human Performance Lab, combining exercise physiology and behavior modification with nutrition education. As a consultant dietitian for Parkview Hospital, Fort Wayne, Jenny visited various area hospitals providing nutrition counseling and teaching weight control classes for, among others, hospital employees. Jenny was Director of Food Services at Huntington Memorial Hospital when hospital department heads were asked to supply articles on a regular basis for the community newspaper.

Jane Stegemiller
Print (Single)

Indianapolis native Jane Stegemiller has been with the Indianapolis News as a reporter since 1977. She has been the health and medical reporter for the News since 1981.

A health problem affecting thousands of Hoosiers—hypertension—was the focus of Jane's award-winning story in the News. The article offered a comprehensive discussion of the disease, including details of diagnosis, treatment and risks. The story also examined the problem of patient compliance in drug therapy for hypertension and offers a physician's encouragement to stick to prescribed treatment or ask for alternatives if treatment is unpleasant.



Smith



Stegemiller



Johnson



Townsend



Bob Campbell, Channel 13 news director, accepted award for Mike Lawrence

Tim Johnson
Radio

Tim Johnson is no stranger to ISMA for this is his second year as an ISMA Journalism Award winner. Tim was presented the award in the radio category last year for his series on juvenile alcoholics. The series resulted in a gallonage tax on alcohol to fund counseling programs for juvenile addicts and alcoholics. This year's award-winning series was a closer examination of the issue, revealing that the hard-won counseling funds are being abused and the author of the original bill is considering new legislation to scrap the current program. In other facets of the 1982 series, non-funded detoxification programs are examined.

Associate assignment editor of WTLC-Radio, Indianapolis, Tim is also a nationally registered Emergency Medical Technician.

Marilyn Moran Townsend
Television (Series)

Marilyn Moran Townsend had six years' experience as a medical/health reporter for television network affiliates prior to establishing her own company, Custom Video Corporation. During that time Marilyn received ISMA's Journalism Award in both 1978 and 1979. An impressive list of personal and business credentials distinguishes Marilyn's career in television production, including being named the Outstanding Woman of Indiana in 1980.

This year's award-winning series, "Heartbeat," was aired on WANE-TV, Fort Wayne. A series of 13 half-hour programs, "Heartbeat" dealt with a variety of medical topics from a physician's point of view. They involved extensive videotaping of actual medical procedures and surgeries, along with interviews and office scenes. Praised by both the lay and medical communities, these public service programs were produced by Custom Video at no profit.

Mike Lawrence
Television (Single)

The winner of many national awards, Mike Lawrence joined the staff of Channel 13, WTHR-TV, Indianapolis, in 1977 as a reporter. He was named co-anchor in 1981 of NewsCenter 13's weekend news. Since winning ISMA's 1982 Journalism Award, Mike accepted a television position in Boston.

"Special Care Babies" is the title of Mike's special news segment which won the ISMA Journalism Award. The documentary piece grew out of Mike's personal observations as he and his wife prepared for the birth of their first child. Most people, Mike found, were not well-informed when it came to insurance coverage for childbirth—particularly when special circumstances, such as premature birth or complications, bring astronomical bills not covered by many policies. The ultimate goal of the piece, Mike reports, was to help people thinking of having a baby to recognize insurance as a major part of the planning process and to give them some idea of what sort of insurance for which to look.

Call to Order, Miscellaneous Business

The House of Delegates convened its 133rd Annual Convention, featuring the theme "Advances in Medical Care," at 7 p.m., EST, Friday, Oct. 15, 1982, at the Holiday Inn North, Indianapolis, Ind. The final session of the House of Delegates convened at 9 a.m., EST, Monday, Oct. 18, 1982. Presiding at both sessions were Dr. Lawrence E. Allen, speaker, assisted by Dr. Shirley T. Khalouf, vice speaker. Dr. Lloyd L. Hill, Peru, served as parliamentarian. Invocation was given by Rev. Thomas O'C. Heilman, St. Ambrose, Anderson.

Approval of Minutes

The proceedings of the 132nd Annual Meeting of the House of Delegates, held at the Sheraton West, Indianapolis (Oct. 23-26, 1981) and published in THE JOURNAL of the Indiana State Medical Association, December 1981, were approved.

Future Conventions

1983—Evansville ..... Oct. 14-17
1984—Indianapolis..... Oct. 19-22
1985—South Bend ..... Oct. 11-14
1986—Indianapolis..... Oct. 10-13
1987—Columbus..... Oct. 23-26

Election of Officers

Dr. John A. Knote, Lafayette, as president-elect, succeeded to the office of president. Dr. George T. Lukemeyer, Indianapolis, was elected president-elect. Other elections included:

Treasurer—Dr. Douglas H. White, Indianapolis

Assistant Treasurer—Dr. George H. Rawls, Indianapolis

Speaker of the House—Dr. Lawrence E. Allen, Anderson

Vice Speaker of the House—Dr. Shirley T. Khalouf, Marion

Chairman, Board of Trustees—Dr. Paul Siebenmorgen, Terre Haute

Clerk/Chairman Pro Tem, Board of Trustees—Dr. Richard G. Huber, Bedford

Chairman and At Large Member, Executive Committee—Dr. Herbert C. Khalouf, Marion

At Large Member, Executive Committee—Dr. Michael O. Mellinger, LaGrange

Election of Delegates, Alternate Delegates to the AMA

The following were elected to two-year terms as delegates and alternate delegates to the American Medical Association, their terms to expire Dec. 31, 1984:

Delegates:

Gilbert M. Wilhelmus, M.D., Evansville

Everett E. Bickers, M.D., Floyds Knobs

In Memoriam

Tribute was extended to members of the Indiana State Medical Association who have died since the 1981 session:

Robert E. Arendell, M.D., Evansville
Dean R. Bahler, M.D., Crawfordsville
Willoughby M. Barton, M.D., Centerville
Samuel M. Baxter, M.D., Clarksville
Paul W. Blossom, M.D., Richmond
Copeland C. Bowers, M.D., Monument, Colorado (formerly Kokomo)
Abraham A. Brauer, M.D., Griffith
William W. Bronson, M.D., Richmond
Robert C. Bullers, M.D., Franklin
John H. Combs, M.D., Bloomfield
Glenn Conway, M.D., Indianapolis
Marvin P. Cuthbert, M.D., Carmel
Fred N. Daugherty, M.D., Crawfordsville
Carl E. Dillman, M.D., Corydon
Lyman D. Eaton, M.D., Indianapolis
Mark E. Erehart, M.D., Melbourne, Florida (formerly Huntington)
Harry W. Fitzpatrick, M.D., Elwood
Richard R. Fowler, M.D., Bloomington
Robert D. Fry, M.D., Indianapolis
John J. Gallinatti, M.D., Merrillville
Abraham B. Ginsherman, M.D., Louisville, Kentucky
Samuel Goldman, M.D., Indianapolis
Adolph Goldstone, M.D., Merrillville
Thomas A. Hanna, M.D., Speedway
Robert L. Harris, M.D., Evansville
Clarence A. Hartley, M.D., Evansville
Nicholas W. Hatfield, M.D., Indinapolis
Theodore A. Hill, M.D., Michigan City
Frank D. Hogle, M.D., Michigan City
Victor S. Huggins, M.D., Evansville
John E. Jesseph, M.D., Indianapolis
James E. Jobes, M.D., Indianapolis
Meyer W. Kobrin, M.D., Highland
Laddie H. Kornafel, M.D., Indianapolis
Louis T. Kudele, M.D., Whiting
Stanley H. Kryszek, M.D., Indianapolis
E. Briscoe Lett, M.D., Loogootee
Sam W. Litzenberger, M.D., Gloucester, Massachusetts (formerly Anderson)
Harold W. Mammen, M.D., Indianapolis
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Joseph H. McCool, M.D., Evansville
William B. McWilliams, M.D., Liberty
Samuel R. Mercer, M.D., Fort Wayne
William A. Miller, M.D., Hagerstown
Jack A. Moswin, M.D., Merrillville
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Lyman R. Pearson, M.D., Dunedin, Florida
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James F. Peck, M.D., Princeton
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James O. Ritchey, M.D., Indianapolis
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George M. Rosenheimer, M.D., South Bend
Emil W. Scheier, M.D., Indianapolis
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Harry Sherster, M.D., Indianapolis
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Harvey W. Sigmond, M.D., Indianapolis
Harry Silvian, M.D., Whiting
Ernest E. Smucker, M.D., Goshen
Paul W. Sparks, M.D., Winchester
Lowell R. Steele, M.D., Indianapolis
Donald G. Sturgis, M.D., Sellersburg
Eugenio Tan, M.D., Bedford
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Paul S. Yocum, M.D., Merrillville

Malcolm O. Scamahorn, M.D., Pittsboro

Alternates:
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Alvin J. Haley, M.D., Carmel
Lloyd L. Hill, M.D., Peru

Elected/Reelected Trustees, Alternates—1982-83

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Scientific Exhibit Awards

First Place: "The Assessment of Bone Healing by Bone Impedance"

Exhibitor: Raymond O. Pierce, Jr., M.D., Dept. of Orthopaedics, Indiana University School of Medicine.

Second Place: "Advances in Cancer Management"

Exhibitor: Homayoon Shidnia, M.D., Dept. of Radiation Oncology, Indiana University School of Medicine.

Third Place: "Prader-Willi Syndrome Chromosome Subgroups"

Exhibitor: Merlin G. Butler, M.D., Dept. of Medical Genetics, Indiana University School of Medicine.

Dr. Lukemeyer: President-Elect

At the closing session of the ISMA House of Delegates, during ISMA's 133rd annual meeting, George T. Lukemeyer, M.D., Indianapolis, was chosen president-elect of the Association. Dr. Lukemeyer serves as Executive Associate Dean of Indiana University School of Medicine. He has the primary responsibility for the academic, professional and administrative operation of the University Hospitals, holding that position since 1972.

On the medical school admissions committee since 1960, Dr. Lukemeyer has been responsible for directing the Office of Medical School Admissions since 1969. Medical education has been of vital concern to Dr. Lukemeyer since 1954 when he began his career as an instructor in medicine at Indiana University School of Medicine. A 1947 graduate of IU School of Medicine, Dr. Lukemeyer served a residency in internal medicine and was board certified in 1957. He has served in a variety of academic and administrative positions with the IU School of Medicine as well as holding consultative and advisory positions with such groups as the Indiana State Health Planning Council, Indiana Governor's Commission on Medical Education, and Indiana Comprehensive Health Planning Subcommittee on "Manpower and Development Task Force."



Dr. Lukemeyer is a fellow of the American College of Physicians, member of the American Federation of Clinical Research, Association of American Medical Colleges, American Association for Advancement of Science and a member of the Board of Directors of the Marion County Medical Society, of which he is a past president and past secretary-treasurer among other positions held in organized medicine. From 1976 to 1979 Dr. Lukemeyer served as Governor of Indiana for the American College of Physicians.

Born in Francisco, Indiana, Dr. Lukemeyer attended high school in Jasper. He and his wife Barbara reside in Indianapolis. They have two children.

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(Vanderburgh County—District 1) FP
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(Lake County—District 10) FP
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(Allen County—District 12) FP
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Russell L. Judd, M.D., Indianapolis
(Marion County—District 7) U
Gordon S. Fessler, M.D., Rising Sun
(Ohio County—District 4) FP

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Max N. Hoffman, M.D., Covington
Fred W. Dahling, M.D., New Haven
Alfred C. Cox, M.D., South Bend
Thomas A. Felger, M.D., Fort Wayne
Gilbert M. Wilhelmus, M.D., Evansville

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G. Beach Gattman, M.D., chairman
Robert Brown, M.D.
Ray Burnikle, M.D.
Adrian Lanning, M.D.

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Barbara Backer, M.D., chief teller
Thomas N. Petry, M.D.
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Joseph D. Richardson, M.D.
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House of Delegates—1982

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Cutaneous Medicine—David H. Kingsbury, Indianapolis
Directors of Medical Education—Robert B. Chevalier, Indianapolis
Emergency Medicine—John C. Johnson, Crown Point
Family Physicians—Bernard J. Emkes, Indianapolis
Internal Medicine—James E. Cassady, Indianapolis
Nervous & Mental Diseases—Dwight W. Schuster, Indianapolis
Nuclear Medicine—Robert W. Burt, Indianapolis
Ophthalmology—Daniel Evans, Valparaiso
Orthopaedic Surgery—Gilbert Gutwein, Lafayette
Pathology & Forensic Medicine—Garry L. Bolinger, Indianapolis
Pediatrics—Robert M. Sweeney, South Bend
Public Health & Preventive Medicine—Robert W. Vermilya, Lafayette
Radiology—John C. Spellmeyer, Richmond
Surgery—Ted W. Grissell, Indianapolis
Urology—Neale A. Moosey, Indianapolis

House of Delegates

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William R. Cast, Fort Wayne	De Wayne Hull, Fort Wayne
Fred W. Dahling, New Haven	Richard L. Jontz, Fort Wayne
Robert W. Dettmer, Fort Wayne	John T. Lucas, Fort Wayne
Thomas A. Felger, Fort Wayne	J. C. Muhler, Fort Wayne
Marvin E. Priddy, Fort Wayne	Thomas A. Shealy, Fort Wayne
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Robert Lee Forste, Jr., Columbus	Kenneth D. Schneider, Columbus
Lawrence F. Schneider, Columbus	
Robert M. Siebel, Nashville	
BENTON (1)	
Manley K. Scheurich, Oxford	
BOONE (1)	
Ben H. Park, Lebanon	Paul R. Honan, Lebanon
CARROLL (1)	
T. Neal Petry, Delphi	Edward L. Langston, Flora
CASS (1)	
Richard L. Glendening, Logansport	Joseph A. Frederick, Logansport
CLARK (1)	
David H. Jones, Charlestown	Thomas A. Neathamer, Jeffersonville
CLAY (1)	
Everett L. Conrad, Brazil	S. R. Farid, Brazil
CLINTON (1)	
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Robert W. Chattin, Loogootee	
Horace Norton, Washington	
DEARBORN-OHIO (2)	
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Gordon Fessler, Rising Sun	
DECATUR (1)	
Robert Acher, Greensburg	
DE KALB (1)	
Mark S. Souder, Auburn	Gary Lee Sheeler, Auburn
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Larry Cole, Yorktown	David M. Dersch, Muncie
Ross L. Egger, Daleville	Jack Alexander, Muncie
Donald W. Hunsberger, Montpelier	Jack C. Moore, Muncie
L. Marshall Roch, Muncie	Dennis F. Lawton, Muncie
DU BOIS (1)	
Thomas Gootee, Jasper	John P. Salb, Jasper

DELEGATES	ALTERNATES
ELKHART (2)	
G. Beach Gattman, Elkhart	Timothy Thut, Goshen
Willard S. Krabill, Goshen	John B. Guttman, Wakarusa
FAYETTE-FRANKLIN (2)	
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Perry F. Seal, Brookville	Jack M. Lockhart, Connersville
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Everett Bickers, Floyds Knobs	Howard A. Pope, New Albany
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Atee Salvo, Williamsport	Carl Nelson, West Lebanon
FULTON (1)	
Joseph D. Richardson, Rochester	Pedro G. Del Rosario, Rochester
GIBSON (1)	
William R. Wells, Princeton	
GRANT (2)	
Robert Brown, Marion	P. J. Fisher, Marion
Shirley Khalouf, Marion	Laurence K. Musselman, Marion
GREENE (1)	
Frederick Ridge, Linton	F. C. Alana, Jr., Bloomfield
HAMILTON (1)	
R. Adrian Lanning, Noblesville	Joe R. Lloyd, Noblesville
HANCOCK (1)	
Ray A. Haas, Greenfield	Gary C. Sharp, Greenfield
HARRISON-CRAWFORD (2)	
Rashidul Islam, Corydon	Thomas Roberts, Corydon
HENDRICKS (1)	
Lloyd Terry, Danville	Thomas Walker, Brownsburg
HENRY (1)	
Calvin N. Steussy, New Castle	Michael Silbert, New Castle
HOWARD (2)	
Jack W. Higgins, Kokomo	Michael A. Shirley, Kokomo
Jere D. Guin, Kokomo	
HUNTINGTON (1)	
Richard Wagner, Huntington	S. E. Cope, Huntington
JACKSON (1)	
Frank B. Bard, Crothersville	Richard Wiethoff, Seymour
JASPER (1)	
Kenneth J. Ahler, Rensselaer	
JAY (1)	
James S. Fitzpatrick, Portland	Eugene Gillum, Portland
JEFFERSON-SWITZERLAND (2)	
Ott McAtee, Madison	Robert O. Zink, Madison
D. C. Valenzuela, Vevey	

DELEGATES	ALTERNATES
JENNINGS (1)	
James Calli, Sr., North Vernon	F. Richard Walton, North Vernon
JOHNSON (1)	
Merrill M. Weseman, Franklin	Joseph W. Young, Greenwood
KNOX (1)	
Walter R. Vaughn, Vincennes	
KOSCIUSKO (1)	
Wymond B. Wilson, Mentone	David W. Haines, Warsaw
LA GRANGE (1)	
John A. Egli, Topeka	
LAKE (12)	
David M. Harvey, Munster	William Nowlin, Merrillville
Lee Trachtenberg, Munster	Robert Wylie, Hobart
Mary E. Carroll, Crown Point	Floyd Manley, Hammond
John A. Carey, Gary	Felix Millan, East Chicago
Daniel T. Ramker, Hammond	R. Blanco, Dyer
William Sabo, Munster	Robert Woodburn, Merrillville
Walfred A. Nelson, Gary	William Fitzpatrick, Munster
Barron M. F. Palmer, Hammond	Reginald R. Barton, Gary
Nicholas L. Polite, Hammond	Ben Grant, Gary
Ronald R. Reed, Hammond	
Joseph J. Sala, Merrillville	
Thomas C. Tyrrell, Hammond	
LA PORTE (2)	
Barbara Backer, LaPorte	Donald L. Weninger, Michigan City
John Luce, Michigan City	William Scupham, LaPorte
LAWRENCE (1)	
James L. Mount, Bedford	Eric V. Schultz, Bedford
MADISON (2)	
Lawrence E. Allen, Anderson	Gerald P. Irwin, Alexandria
William C. VanNess, II, Alexandria	John D. Jones, Anderson
MARION-INDIANAPOLIS (27)	
James E. Carter	William H. Beeson
Helen G. Czenkusch	Garry L. Bolinger
Fred R. Dallas	Richard W. Campbell
A. Alan Fischer	Gerald M. DeWester
John L. Glover	David B. Goldenburg
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Ted L. Grisell	Bradford R. Hale
Donald J. Kerner	Hudner Hobbs
Gerald J. Kurlander	John Isch
E. Henry Lamkin, Jr.	Russell L. Judd
John C. Lowe	Richard L. Lautzenheiser
George T. Lukemeyer	Donna J. Meade
John D. MacDougall	Robert W. Mouser
Loren M. Martin	Robert D. Nation
B. T. Maxam	Robert Parr
Edwin J. McClain	Frederick Rice
I. E. Michael	Robert L. Rudesill
John R. Moriarty	Roland Rust

DELEGATES	ALTERNATES
Paul Muller	James E. Schroeder
David J. Need	John L. Searight
John G. Pantzer	Thomas G. Slama
George Rawls	John A. Smith
Richard B. Schnute	Willis Stogsdill
Hugh K. Thatcher, Jr.	E. Paul Thomas
Charles R. Thomas	Morris E. Thomas
Edward C. Wheeler	Virginia M. Wagner
Douglas H. White	Gerald C. Walthall
MARSHALL (1)	
Michael F. Deery, Culver	
MIAMI (1)	
James E. Duncan, LaFountaine	Lloyd L. Hill, Peru
MONTGOMERY (1)	
Thomas E. Topper, Crawfordsville	Carl B. Howland, Crawfordsville
MORGAN (1)	
Warren L. Gray, Martinsville	
NEWTON (1)	
Arthur Schoonveld, Brook	M. F. Guzman, Morocco
NOBLE (1)	
James D. Chandler, Avilla	John E. Ramsey, Kendallville
ORANGE (1)	
Phillip T. Hodgin, Orleans	
OWEN-MONROE (3)	
Russell J. Dukes, Bloomington	Stephen L. Bellis, Bloomington
John Stearley, Gosport	B. Diane Wells, Spencer
William E. Weber, Jr., Bloomington	
PARK-VERMILLION (2)	
J. F. Swaim, Rockville	Daniel J. Dwyer, Rockville
PERRY (1)	
Robert A. Ward, Tell City	
PIKE (1)	
Donald L. Hall, Petersburg	
PORTER (2)	
Frank M. Sturdevant, Valparaiso	Joel I. Hull, Chesterton
John L. Swarner, Jr., Valparaiso	
POSEY (1)	
John Vogel, Mt. Vernon	John Crist, Mt. Vernon
PULASKI (1)	
W. R. Thompson, Winamac	Edward L. Hollenberg, Winamac
PUTNAM (1)	
Gregory Larkin, Greencastle	Richard L. Veach, Bainbridge
RANDOLPH (1)	
Lowell W. Painter, Winchester	Howard W. Koch, Winchester
RIPLEY (1)	
A. A. Daftary, Batesville	

DELEGATES	ALTERNATES
RUSH (1)	
Ordonio J. Reyes, Rushville	
ST. JOSEPH (6)	
Kenneth Cline, Wyatt	David Clayton, South Bend
Alfred Cox, South Bend	Robert M. Sweeney, South Bend
Robert D. Dodd, South Bend	Michael Conroy, South Bend
John Hildebrand, South Bend	Lee Smith, Mishawaka
Richard A. Schaphorst, Mishawaka	Richard Buck, South Bend
Herbert Schiller, South Bend	Patrick O'Dea, South Bend
SCOTT (1)	
Marvin L. McClain, Scottsburg	Jesus C. Bacala, Scottsburg
SHELBY (1)	
Wilson L. Dalton, Shelbyville	Floyd Thurston, Shelbyville
SPENCER (1)	
Michael O. Monar, Rockport	John C. Glackman, Rockport
STARKE (1)	
Walter Fritz, Knox	Herbert C. Ufkes, North Judson
STEUBEN (1)	
R. Wyatt Weaver, Angola	Donald G. Mason, Angola
SULLIVAN (1)	
Glen McClure, Sullivan	Betty J. Dukes, Dugger
TIPPECANOE (4)	
Gilbert Gutwein, Lafayette	Robert E. Hannemann, Lafayette
George M. Underwood, Lafayette	David Evans, Lafayette
Paul T. Maier, Lafayette	Patrick R. O'Neil, Lafayette
Barbara J. Bourland, Lafayette	
TIPTON (1)	
Terrance J. Ihnat, Elwood	
VANDERBURGH (8)	
Bryant Bloss, Evansville	Wallace Adye, Jr., Evansville
Ray H. Burnikel, Evansville	James Fattu, Evansville
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Eugene L. Hendershot, Evansville	Robert Harris, Evansville
Forrest F. Radcliff, Evansville	Thomas Hayes, Evansville
Bruce Romick, Evansville	Frank Hilton, Evansville
Elizabeth Sowa, Evansville	Ned Rule, Evansville
L. Ray Stewart, Evansville	Santi Vibul, Evansville
VIGO (3)	
Robert O. Lancet, Terre Haute	James T. Deppe, Terre Haute
Ludimere Lenyo, Terre Haute	Andrew Chau, Terre Haute
William L. Strecker, Terre Haute	Robert Reed, Terre Haute
WABASH (1)	
Fred Poehler, LaFountain	
WARRICK (1)	
Syed A. Ali, Boonville	
WASHINGTON (1)	
C. Stanley Manship, Hardinsburg	

House of Delegates

DELEGATES	ALTERNATES
WAYNE-UNION (3)	
James Daggy, Richmond	C. G. Clarkson, Richmond
James R. Lewis, Richmond	James E. Swonder, Richmond
Gerald L. Price, Liberty	
WELLS (1)	
Louis F. Bradley, Bluffton	John D. Miller, Bluffton
WHITE (1)	
James C. Balvich, Monticello	
WHITLEY (1)	
Thomas G. Hamilton, Columbia City	C. Jules Heritier, Columbia City
STUDENT DELEGATE	
Gordon Hughes, Indianapolis	

Fifty-Year Club—1982

ALLEN COUNTY
Alan R. Chambers, Fort Wayne
George M. Graham, Sarasota, Fla., formerly Fort Wayne
Orval J. Miller, Fort Wayne

BENTON COUNTY
William H. Altier, Royal Palm Beach, Fla., formerly Fowler

CLINTON COUNTY
Bruce A. Work, Frankfort

DAVIESS-MARTIN COUNTY
Hamlin B. Lindsay, Washington

DECATUR COUNTY
Dale D. Dickson, Greensburg

DELAWARE-BLACKFORD COUNTY
William B. Adams, Muncie
Maurice G. Schulhof, Muncie
Elaine M. Vlaskamp, Muncie

HENDRICKS COUNTY
Arthur N. Scudder, Brownsburg

JEFFERSON-SWITZERLAND COUNTY
William A. Shuck, Miami, Fla., formerly Madison

LAKE COUNTY
Raymond F. Carmody, Gary
Angel I. Reyes, Chicago

MARION COUNTY
Russell L. Arbuckle, Indianapolis
Olga Bonke Booher, Indianapolis
Floyd A. Boyer, Indianapolis
Palmer O. Eicher, Indianapolis
J. Neill Garber, Indianapolis
Charles L. George, Indianapolis
Russell S. Henry, Indianapolis
Kenneth G. Kohlstaedt, Palm Springs, Calif., formerly Indpls
Laddie H. Kornafel, Indianapolis (deceased)
Leon Levi, Indianapolis
Ralph J. McQuiston, Indianapolis
Charles A. Reid, Indianapolis
Herbert L. Sedam, Indianapolis
Harris B. Shumacker, Indianapolis
Frank W. Teague, Indianapolis

OWEN-MONROE COUNTY
Erling S. Fugelso, Bloomington

RIPLEY COUNTY
William C. McConnell, Sunman

RUSH COUNTY
Frank H. Green, Rushville

ST. JOSEPH COUNTY
Ruth F. Rasmussen, South Bend
John F. Wixted, Harbert, Mich., formerly South Bend
Julia M. Wixted, Harbert, Mich., formerly South Bend

SHELBY COUNTY
John A. Davis, Flat Rock (deceased)

TIPPECANOE COUNTY
Mary E. Keller Ade, Lafayette

VANDERBURGH COUNTY
Julian D. Present, Evansville

VIGO COUNTY
Henry J. Zimmer, Terre Haute

ACTION:

1) Adoption and referral to the Board of Trustees the recommendation that the ISMA Interspecialty Council on Scientific Affairs be continued on an ad hoc basis, with referral back to the House of Delegates for consideration of permanent status.

2) Adoption and referral to the Board of Trustees the recommendation that the ISMA Medical Malpractice Advisory Committee be continued on an ad hoc basis, with referral back to the House of Delegates for consideration of permanent status.

3) Remainder of address filed.

Mr. Speaker, Madam Vice-Speaker, Dr. Knote, members of the House and guests. The Annual Meeting of House of Delegates provides a final occasion for the president to address his colleagues and review events of the past year and make recommendations for the future. Before doing this, I want to express my thanks to the officers, the members of the Board of Trustees, the members of the Executive Committee, the AMA delegates and alternate delegates, the committees and commissions of ISMA, the members of the ISMA Auxiliary and, especially, the staff of ISMA. Without these dedicated people, very little would be accomplished in any presidential term. I have appreciated the support, advice and help given to me and will miss my close association with all of them.

There are several topics I want to discuss:

Membership in Organized Medicine

Our profession is only as strong as its membership. Membership in the Association is not an option but a necessity to safeguard the future and establish a better vehicle for speaking out on behalf of the profession. The president can speak out in public on behalf of our organization, but unless we join together, we have no voice at all. Some physicians haven't joined their county or state society simply because no one has asked them to join and they see no real advantage to joining. District trustees and county society officers should not let this happen. Less than 100 physicians in Indiana have bypassed their county and state societies and joined the AMA directly, as far as we know. I have written to these physicians in an attempt to get them to support the county and state organizations. It is imperative that we find out why these physicians joined AMA directly. County presidents have been notified of the physicians in their county. Physicians must understand that there is a major commitment in belonging to their Association and it is not just a question of paying dues; it is a lot more. ISMA staff has prepared a slide presentation and a brochure on the importance of membership in organized medicine. These are available on request to be shown to any group. Just call the ISMA office.

Fortunately, in Indiana, we have many capable physicians who have played outstanding roles in the county, state and national organizations, but more need to be developed.

Legislation—Local, State, Federal

ISMA has three avenues of approach in the area of legislation:

1. **ISMA Commission on Legislation:** The members of this commission have done an excellent job under chairman Dr. Paul J. Wenzler as have staff members Rick King and Susan Grant. Next month, (Nov.), four regional Legislative Leadership Conferences will be held in different areas of the state. This program was successfully initiated last year. It is important for all members to attend these sessions and bring their state representatives and state senators with them. The ISMA Auxiliary has been very helpful in making these programs productive and also in developing the State Health Legislative Workshop, first presented by ISMA in May 1982 and to be repeated in 1983.

2. **IMPAC:** You can't do much in politics without money and ISMA's primary source is your contribution to IMPAC. Dr. Richard Reedy and Mr. Howard Grindstaff have done an admirable job in "preaching the gospel;" however, we should have greater participation by our members. Many physicians are too busy to be active politically. We understand this; but we don't understand the lack of financial help by these members. The legislative programs I previously mentioned are co-sponsored by IMPAC. I cannot emphasize enough the necessity for input in local, state and national legislation. We cannot expect anyone else to do our job for us. If we don't speak up as physicians, no one is going to speak for us. Don't assume your legislators understand the issues. They may have been informed or purposely misinformed on some issues by forces that are anti-physician, and there are many of these as we found out in Washington a few weeks ago when we were there lobbying the FTC issue.

If you don't belong to IMPAC, join today.

3. **Personal:** With the economy the way it is today, I know that financial contributions to political campaigns, on a personal basis, may be a financial hardship; however, it is important for each physician to contribute what he can in either money or some other type of support to the candidates. If you can convince some of your patients to vote for a candidate of your choice, that candidate will appreciate it, perhaps, more than he would a financial contribution. Get to know your legislators on a first-name basis if possible, and see him or her for discussion of important medical issues prior to the meeting of the General Assembly when he or she will be extremely busy.

I suggest you keep in contact with Dr. Reedy, Rick King, Ron Dyer, and your two field representatives, Howard Grindstaff and Sara Klein, to clarify ISMA's policy on any local, state or national issue.

Public Image

We have a great handicap to overcome in this area. The media seems to be reluctant, in most instances, to slant the news in our favor no matter how right we are. Perhaps, it is our fault for not taking the time to explain our views accurately and intelligently, without emotional involvement. Possibly, if we participate more in community affairs and become prominently recognized as community leaders, we could create a better relationship with the media and dispel some myths that exist.

Dr. John V. Osborne, chairman of the Public Relations Commission, and his commission have been doing an excellent job. Please read his report in THE JOURNAL.

Another aspect in creating a positive public image is the necessity to have accurate scientific information when this is requested by the media or the legislators; consequently, I appointed an Ad Hoc Interspecialty Council on Scientific Affairs consisting of members of the Specialty Sections of ISMA. **I recommend that this Council be continued on an ad hoc basis and later be considered by the House of Delegates for permanent status.**

Insurance

The Commission on Medical Services and the Sub-Commission on Insurance have had a busy year. I thank chairman Dr. John D. MacDougall and the commission members for their dedicated response to some difficult tasks. Among these:

1. **ISMA Group Health Insurance Plan:** As you are aware, this program for ISMA members was changed from BC/BS to Lincoln National Life Insurance Company. The Sub-Commission on Insurance spent a considerable amount of time and deliberation before recommending this change. They arrived at their decision from a purely economic basis. The present enrollment in this plan already exceeds the previous plans by more than several hundred members.

2. **IPLIC:** Indiana Physicians Life Insurance Company is a wholly owned subsidiary of Indiana Physicians Investment Company. It began business in August 1981 and offers a complete line of life insurance products and services especially tailored for physicians. Recently, new products such as Universal Life, Retired Lives Reserve and Group IRAs have been introduced. Also, a Financial Planning Services Program is being offered by James D. Townsend and Earl W. Williams, IPLIC's general agents, through their ERISA Planning Services Corporation. This program is sponsored and endorsed by ISMA. Townsend and Williams are experienced insurance brokers associated with a statewide network of agencies through which the life insurance programs are being sold. See their advertisement in THE JOURNAL.

3. **PICI:** Physicians Insurance Company of Indiana was formed after the recommendation of the Sub-Commission on Insurance was approved at a special meeting of the Board of Trustees, April 21, 1982. On July 1, 1982, the Indiana Insurance Dept. granted PICI a Certificate of Authority which then allowed the company to sell policies. This company is a medical liability company, at present, concerned with providing malpractice insurance but will be writing other forms of casualty insurance to cover the needs of physicians.

We hope that as physicians learn more about the advantages of a physician owned and operated liability company, PICI's penetration of the market will increase. We can understand the reluctance of some physicians to change from an insurer of long standing and, possibly, the fear of changing to a new company, but we want to emphasize the fact that PICI is in business and here to stay. The four-state consortium of which PICI is a member has assets in excess of $150 million, and a combined annual premium income of $30 million, insuring more than 7,500 members. It is operated by professionals who have had a great amount of experience in this field.

There were definite reasons ISMA entered into this business and I refer you to the report of the Executive Director, Donald F. Foy, in THE JOURNAL. Because of these reasons, the Ad Hoc Medical Malpractice Advisory Committee has been activated and **I recommend that this Ad Hoc Committee be continued as such and that at a later date the House of Delegates make it a permanent commission.**

Mr. Kurt Driscoll is the CEO of this company and will be available during this meeting to answer questions and discuss PICI's program.

FTC

I hope you are all aware by now of the problems we have with the FTC and the inordinate amount of time and money the FTC has caused the AMA and some state medical societies to spend defending their actions and principles. The FTC is a 5-member commission appointed by the President and confirmed by the Senate. In 1975, the FTC established itself as the regulatory agency for the professions, including medicine, by filing a complaint against the AMA. Since 1975, the AMA has spent $3.5 million on outside legal counsel. The total cost to AMA probably approaches more than $6 million to fight the FTC on complaints alleging violation of the Federal Trade Commission Act. Although the AMA had resolved and abandoned the alleged restrictions a long time ago, the FTC persisted in prosecuting. Last spring, the U.S. Supreme Court voted 4 to 4 with 2 abstentions and thereby failed to resolve the problem of FTC jurisdiction.

The U.S. Congress has never authorized the FTC to regulate professional associations and preempt state laws governing professions. The medical profession does not advocate exempting the professions from federal antitrust laws.

The Supreme Court has held that professions and their associations are not exempt from the Sherman Anti-Trust Act and we accept that. The U.S. Department of Justice, State Attorneys General and private individuals can all challenge anti-competitive practices. States have regulatory licensing and consumer fraud authority and can bring action against deceptive acts and practices and unfair trade practices. The U.S. Justice Department has allowed the FTC to usurp authority to regulate the learned professions. The U.S. Congress has never authorized such activity. The Senate FTC Reauthorization Bill was to be heard prior to Sept. 30 when funding ran out but Congress began its pre-election recess without taking action on the FTC legislation. The Senate Appropriations Committee approved a resolution 13 to 5 to continue funding the FTC on a temporary basis until Dec. 15. In the interim, the agency is barred from expending the funds to enforce action against the professions.

The House approved a continuing resolution to provide temporary funds for a number of Federal Agencies including the FTC. This resolution did

not contain language restricting the agency's scope in professional matters.

When Congress returns for a "lame duck" session later in November, there have been leadership commitments in both Houses for votes on the professions issue. The AMA and ISMA support S. 2499 as long as Section 3 remains intact. This section restricts FTC activity concerning the professions.

H.R. 6995 was amended by Reps. Luken and Lee and *we support* this amendment; however, a substitute amendment was submitted by Rep. James Broyhill (D.-N.C.) that would mandate FTC jurisdiction over the professions and would permit the agency to preempt state laws concerning professionals. *We oppose* this amendment. It has been termed a "compromise" amendment between the Luken-Lee amendment and the original bill as reported out of the House Energy and Commerce Committee. It is *not* a compromise.

There is still time while our senators and representatives are home campaigning to make them aware of how we feel about FTC interference in the medical profession. FTC activities have damaged the quality of care by limiting physicians' and medical societies' ability to enforce professional standards, engage in peer review, and comment on poor performance records in the practice of medicine, as well as siphon off the societies' funds to accommodate FTC "fishing expeditions." Contact your congressman and our senators in the next few weeks. Let them know all we are asking is a moratorium on FTC activities involving the learned professions until Congress decides to grant or not expressly grant this authority to the FTC. If Congress decides to give jurisdiction to the FTC, we will abide by this decision.

Health Care Costs

Since the total outlay for health care is rising faster than the GNP, it is estimated by 1990 that $757.9 billion, or 11.5% of the GNP, will be spent on health care. The federal government spent $68 billion this year for health care and expects that figure to triple by the end of this decade if there are no changes. Several reasons are given for the escalating costs, such as:

1. System Expansion—includes technology, facilities and physicians.
2. Aging population.
3. Long-term chronic illnesses.
4. Our system of financing.

Suggestions for containing health care costs include:

1. Competition—HMOs, IPAs, PPOs and Multispecialty Clinics.
2. Regulation—state or federal.
3. Downsizing—facilities, etc.
4. Decreasing Medicare and Medicaid.

Physicians should not be a part of the problem but part of the solution. We should cooperate and not take an adversarial stance. We should participate in local activities and try to understand the problems in hospitals, the community, and the delivery of health care. We should be concerned about the *quality* of care and the *accessibility* of care. ISMA has taken a leading role in developing business-medicine coalitions in local communities and as the base of participation is broadened, I hope we will be able to understand each other's problems and arrive at fair and reasonable solutions in attempting to control costs.

Physicians must be active in an effective peer review system or utilization review program. Much concern and thought has been demonstrated by organizations, including the AMA, for improving the cost-effectiveness of health care utilization and the consensus is the need for an improved Peer Review System. ISMA should have a leading role in developing a system conducted by local review boards before we are preempted in this area by insurance companies or others.

The Economy

Indiana has many areas with high unemployment rates and consequently, the incomes of physicians may be down and their cash flow impeded for various reasons. To try to improve such cash flow problems, ISMA staff has developed a Bank Credit Card Plan with the cooperation of Indiana National Bank. Information has been mailed to the members and we hope this will be of some benefit to participants.

VIP

The ISMA Board of Trustees and Executive Committee have been monitoring the Blue Cross/Blue Shield VIP program since its inception and have attempted to keep the membership advised of developments as they occur.

Our attorneys have advised from the outset that there are potential areas of legal challenge to the program. Their opinion has recently been affirmed by outside counsel.

The cost of pursuing a legal challenge to the VIP program on behalf of one or more of our members would be in excess of $250,000 prior to ultimate resolution of all the legal issues associated with the VIP program. The membership must realize that in litigation such as the one contemplated there can be no guarantee of success. However, in my opinion the issue is larger than VIP. It affects the entire medical profession in Indiana whether one chooses to participate or not. The real issue is the freedom of physicians to set their own fees.

Therefore, the choice is yours to either have the legal issues resolved by an independent judicial body or simply do nothing.

I would like for this House of Delegates to come to a decision during this session.

ACTION:

1) Referred to the Board of Trustees the recommendation of a Medical Council within districts. Remainder of address filed.

2) Report filed.

ADDRESS:

Dr. O'Neill, Mr. Speaker, officers, trustees, delegates, and friends; thank you very much for the opportunity to be your representative and spokesman for the coming year.

My background in rural Howard County included a few misspent (or possibly well spent) hours in the Greentown Recreation Parlor, where I learned a game of pool known as 8-ball.

Taking a speaker's prerogative, I am using a play on words to entitle my presentation "Organizational -Ate Ball." I'll take a few minutes to focus on eight words which will guide my thinking during the coming year. These words are all suffixed by -ate, and are as follows: Participate, evaluate, prognosticate, communicate, educate, advocate, legislate, and motivate.

Participate. This is the key. If our organization is strong and appropriate, nonmembers will want to join. A stronger and more active organization will be produced by involving a higher percentage of our current members in activities related to ISMA.

Rather than decrease the number of trustees or trustee districts, I ask you to consider the creation of organizational units larger than the counties, but smaller than the districts. A 3 or 4 county medical council will get additional members involved and bridge the gap between our counties and districts where the breakdown in ISMA participation exists. Such an improvement would better represent individual ISMA members and their patients. Please consider the possibility.

One specific area in which members may participate will be the Ad Hoc Committee on Sports Medicine. I intend to appoint such a committee and also to appoint a subcommittee for technical and medical specialty input to the main committee.

You must encourage ISMA members to participate in the county and district officerships and committees and also in Association-related activities such as getting to know state legislators and state employees. Then our voice can be heard effectively on a local, informal basis where the decisions are really made anyway. Perhaps the Political Action Committee and the Legislative Commission can formalize an effective approach in this area.

One may also participate in ISMA activities simply by covering for an associate while he or she is away on Association business, or by encouraging spouses to participate in Auxiliary activities.

To focus on participation, I ask that the Public Relations Commission consider a yearly award for the Indiana physician (excluding state officers, trustees, and commission members) who is judged most outstanding in promoting ISMA interests. We can't win the game without the best players playing, plus all the bench strength we can develop.

Evaluate. Our organization must assess its strength and weaknesses. I hope to ask an ad hoc committee of past presidents to review ISMA activities of the past 8-10 years and develop a score card for previous Association efforts. In addition, I hope to utilize a membership questionnaire, requesting each member to outline interests, hobbies, functions they would perform for ISMA, and suggestions they have for continued success of the organization. Development of such a membership profile plus review of previous successes and failures will form a basis for the next activity.

Prognosticate. To effectively compete, we need a game plan. We must develop goals for the future, then utilize all affordable resources in a future planning effort. Such resources include expertise of previous leaders, membership response, guidance from our excellent staff, and experience of other state medical associations. Some negative thinkers say that future planning is not worthwhile. I say that few meaningful organizational projects were ever accomplished without detailed planning. It is certain that we can't successfully plan for the future if we don't try!

The Future Planning Committee will include past presidents of ISMA, a few officers or trustees and several younger ISMA members. The young practitioners, many of whom have not had an opportunity to hold elected positions as yet, are the members with the most at stake. Better utilization of demographic data for Indiana and learning from the experience of others can prevent mistakes that have been detrimental to medical care in other states and countries.

Two important items to consider in planning are the attitudes and orientation of patient population in general, and the enlargement of the geriatric segment of our population.

You may be surprised or dismayed to learn that slightly over 50% of people in two recent polls place more emphasis on access to care than on a personal relationship with a private practitioner. Nearly 60% in one poll were willing to have so-called "routine" illness treated by a doctor's assistant or nurse rather than a doctor.

Prognostication in our profession also includes consideration of the growing percentage of people over 65 years of age. The requirement for care is three times greater for those over 65 than for patients under that age. Over half of the people who have ever lived in the over 65 age group are alive now. 11% of our population are over 65; and by 2020, 15% will be over 65—requiring, at that time, 40-45% of the money spent on medical care.

I have no conclusions about these attitudes and demographic data; however, our profession should consider such factors and attempt to effectively plan ahead.

One other important item that planning ahead includes is professional performance evaluation. Call it "peer review," "policing our own" or whatever you want. Approximately 2-4% of our colleagues have professional performance problems—including failure to stay current in the field (the "half life" of current medical information is approximately 7 years), substance abuse, poor primary medical training, illness, and just plain greed. Frankly, this very small segment of our professional population creates 90-95% of the

adverse reaction to our profession. I am damned tired of it! Professional performance evaluation must be planned carefully, is difficult to perform, and may create strife within our profession; but it must be carried out. The process includes utilization review, working with the Medical Licensing Board, and possibly working for state legislation to help us deal with the problem.

In the utilization review area, a survey form has been developed by Boston University to deal with the medical necessity of admissions. "Medical necessity" refers to whether or not an admission to the hospital, or a test, or treatment procedure, alters the ultimate medical condition of the patient. The form is used by local doctors. Dr. Gertman, of Boston University, points out that regional variation in medical practice dooms national or state evaluation attempts to failure. He states that PSROs actually increased utilization in some areas.

The results produced by evaluation using the Boston University form are said to be 95-98% accurate and require review of approximately 100-200 charts. Figures from five states in various areas of the U.S. indicated that a range of from 9-30% of hospital admissions may be unnecessary, with from 30-35% of the hosptial days (in necessary admissions) also unwarranted. Likewise, so-called "ancillary services" (not a very precise term, and one we need to improve upon) are reportedly over-utilized by as much as 20% in some community hospitals (and by as much as 30% over-utilized in teaching hospitals).

In this particular economic climate, some companies are claiming that increasing insurance premiums are taking them from a profit to a deficit position. I have no solution to this problem; but since the medical profession is involved, I feel that we should be doing our own review to verify the figures. If we are over-utilizing, we should be the ones to correct it—not the government nor other payers of the costs.

Whether we believe these figures or not, we must be aware of what others are thinking. ISMA should not do the review, but we should provide the framework upon which local medical units can accomplish it. We have not utilized the appropriation established by this House of Delegates last year for such a purpose. Mr. Foy and Mr. Huntley have made appropriate "white paper" type surveys and proposals along these lines, based on available information.

Communicate. I was very pleased with the ISMA membership response to Knote's Notes. Communication is one of my "best shots" in this game of -ate ball, and I plan to continue informing you of the activities I am performing on your behalf. We must all work even harder to communicate within the profession to benefit our patients and to make our organization more cohesive.

Our relationship with the media is so important in getting information about medical care to the public. I plan to be an initiator rather than a responder in getting our message to our patients and to the public in general.

Communication with medical students and residents is also extremely important. They are our professional progeny.

Of course, continuing dialogue with legislators and the bureaucracy is paramount in this game. Communication is two-way (or multidirectional). We must not allow patients nor legislators to tell us how to practice, but we must listen to their concerns and use their input in such a way that medical care will be improved.

Educate. ISMA must continue to provide the framework for continuing education of physicians in Indiana hospitals, as we are doing now. We must also educate member and non-member doctors about the Association insurance programs, which have so much to offer.

We have an obligation to assist with the education of those still in training, as many of you are doing. I believe ISMA should offer to Indiana University School of Medicine the expertise and experience of member physicians in the areas of practice management, political matters, and administrative techniques. Although there is already too little time to teach important medical subject matter, the bottom line for medical education is the effectiveness of its graduates in practice. I submit that input from private practitioners in the areas outlined would enhance a young doctor's performance greatly.

In addition, I feel strongly that available data indicate a need for departments of geriatrics at certain medical centers around the country. Our medical center administration might further enhance their excellent reputation by determining if the time is right to establish such a department.

Advocate. A physician friend in Lafayette told me a few years ago that the ISMA should be an advocate of the patients. I believe he is correct, because I believe that whatever truly benefits the patient also benefits the doctor. I hope to explore the appointment of an ad hoc committee of Indiana citizens, with physician representation also, to express views of the patients to our organization, the legislature, business and industry, and organized labor. Your ideas and input in this area are most welcome.

We must certainly become more vocal advocates of our own position. The public must know that while bureaucrats, politicians, and the media are telling them that medical care costs are too high, an average worker at any income level works less hours now to pay for an office visit and most routine procedures than he did in 1950. The public must know that the medical profession has been largely responsible for a decrease in infant mortality from 29 per 1,000 in 1950 to 12 per 1,000 in 1980. Average life expectancy is 73 years, an increase of 13 years in the past 30 years. Renal dialysis, total joint replacement, and coronary artery surgery have been developed in the last several years. Certainly, legislators, bureaucrats, Ralph Nader, or the Washington Post were not responsible for any of these things. The medical profession did it. We did it while our own practice expenses were increasing faster than the income to the extent that our spendible income actually decreased in the past 10 years.

Medical students are selected by a process more rigorous than any in the world except for that used to select astronauts. The public is getting increased infant survival, longer life expectancy,

those with chronic disease are living more comfortably, and these improvements are being delivered by a select group at less real income to themselves than several years ago. I believe that we should be quite excited to advocate our own position.

Spending 9-10% of our gross national product on what bureaucrats call "health care" would seem to me to be a bargain over all—especially when compared to the 13.5% of gross national product spent on sports and recreation, 20% of gross national product spent on transportation, and 25-28% of gross national product spent on defense. None of the four areas mentioned can be engaged in without good health.

We should advocate our system of medical care. We are compared to Britain in cost discussions. That country may spend 1.5-2% less of their GNP than the U.S., but people are leaving the system. The private medical sector in Britain now enrolls 6.5-7 million patients and that figure is increasing rapidly. There are 850,000 people on the waiting lists for elective surgery (which some of them get after a wait of 5-6 years, if they don't die first), and nurses were recently on strike because they are making $130 per week. If we effectively advocate our system, most of our patients will choose it over any government or "mass production" system because it will be beneficial to their health to do so.

Legislate. One of my favorite topics and yet one of the most frustrating. I believe that our professional association's most crucial function—as an organization—is in the legislative arena. My goal for ISMA is to be the advisor, the friend, the authority, to which legislators and elected officials turn for input on medical care matters. We should not have to coerce and cajole legislators to accept our help. If we participate, evaluate, prognosticate, communicate, educate, advocate, and motivate properly, then our legislative efforts will be effective.

The area of legislation is one in which we are well staffed and have excellent ISMA member participation, but it must be even better if we are to succeed in this area. I would like your consideration of a plan to once again use the experience and expertise of some of our past presidents on the Political Action Committee, and perhaps on the Legislative Commission. I don't have the plan finalized yet, and would welcome your suggestions. If we are to function as advisors to legislators and elected officials we must assist them in development of the proper perspective about medical care. First, I suggest we provide figures and advice on medical care (diagnosis and treatment of disease), and ask legislators to separate our area from "health care" which may include nutritionists, physical educators, and many others who play key roles in one's overall health and welfare but who aren't primarily involved in medical care.

I suggest that the politicians and bureaucrats take a good look at their own operation. I don't hear much about the "cost of government." I submit that any objective evaluation of cost effectiveness would put medical care in a tremendously more favorable position than government with respect to efficiency.

We should call upon our legislators to help formalize procedures by which we can effectively evaluate professional performance and take steps to correct deficiencies. We are criticized for failing to "police our own"; but when organized medical groups suggest that a colleague is over-charging, the FTC claims we are price fixing. When the rare medical practitioner commits a felony, the court system protects the offender and allows the public to remain exposed to danger. I do not recommend elimination of due process, but legislation could demand suspension of practice during a short time required to prosecute the case, if such cases were given priorty in the system.

The legislators and bureaucrats should also be asked to review their own track record when they involve themselves in primary medical decisions. The early denial of computerized tomographic scanning to many people proved to be cost ineffective as well as detrimental to the overall medical care of the nation. The Health Systems Agencies and Professional Standards Review Organizations actually increased the cost of medical care in several areas.

We must demonstrate to our government that we do appreciate the current fiscal problems, and that we are willing to work on the solution. However, the medical profession must be the primary authority on the effectiveness of their proposals for medical care. Likewise, the most effective programs to produce the best possible medical care in the most economical fashion will be developed locally. There is no way a national or state "blanket" approach can effectively apply New York City medical care to Bloomington, Indiana.

Our discussions with government must inquire about the logic involved in rewarding the auto industry, which has produced poor products for years, with loans while continuing to "witch hunt" for flaws in medical care areas that have produced improvement in the quality of our product by every measurable parameter. This improvement of care has come about at a time when government has been "soft" on tobacco production that is the cause of more preventable illness than any other factor or substance in our country. They have also trodden lightly on alcohol abuse when alcohol is responsible for approximately 205,000 premature deaths per year.

I sincerely question if the government isn't using concern about the medical care system to "smokescreen" their own inefficiency. That is a tragic manuever, and I believe our patients and the general public will let them know how they feel if we only get the facts presented objectively.

I suggest that we in medicine use some of our legislative effort to challenge such practices as the contingency fee system of legal charges and nonmerit tenuring of school teachers, two practices I consider cancerous and parasitic in American society today.

Motivate. Without "Big Mo" we won't even pick up the cue, much less win the match. True motivation comes from within. If a member isn't motivated by his or her part in the greatest medical care system in the history of the world and by a desire to protect that system—we don't need his or her money.

These are some of the ideas I'll be

expressing on your behalf during the next 12 months. As we gather around the green felt table of organizational activity, the overhead illumination is provided by the media and by our predecessors. Our opponents include legislators or bureaucrats who feel they know more about medical practice than we, and any other detractor who would rather gripe than work constructively to improve the system. The way we play this game of -ate ball will determine if we win for our patients, our successors, our families, and ourselves. Decide if you came to spectate or to participate. I came to play. Rack 'em up!

REPORT (Prepared prior to Annual Convention):

This short message will summarize the activities of your president-elect for 1981-1982. My address at the annual meeting will focus more strongly on activities for the coming year.

The president-elect year is one of learning and reorientation. The actions and reactions involved in this position are different from those of a trustee or board chairman. The president-elect position is that of a back-up spokesman and "apprentice" to the position of president. As president-elect, it has been my distinct privilege to meet even more members around the state. Many doctors offer ideas or offer to participate in ISMA activities, and that is very gratifying. The enthusiasm of those involved in ISMA efforts fortifies me for the coming year. We must transmit this enthusiasm to others.

The major areas of ISMA officer and trustee activity in 1981-1982 have included the Investment Company (IPIC), the Life Insurance Company (IPLIC), the Medical Liability Company (PICI), legislative matters (state and national), AMA matters, business of ISMA (fiscal and administrative), plus consideration of items presented by the 1981 House of Delegates and the commissions. Our work in these areas has been greatly enhanced by what may be the most outstanding state medical association staff in America. I thank the ISMA House of Delegates for the opportunity to serve as president-elect. I hope that my performance as president reflects an effective learning response during this current year. It has been great fun.

The coming year will focus on increasing the percentage of members participating in ISMA activities, acquisition of new members, heavy emphasis on our input on state and national legislative process, and solid commitment to enlighten members about the advantages of our new insurance companies.

1982 Physician Community Service Award

John D. Pulcini, M.D.
Evansville Plastic Surgeon

Although a great many people worked to make it possible, the feeling in Evansville is nearly unanimous that the Evansville metropolitan area would not have paramedics saving lives on the streets and highways today if it were not for the untiring efforts of John D. Pulcini, M.D. In March 1977, Dr. Pulcini began his efforts to weld Evansville hospitals, emergency room physicians, city administration and private ambulance providers into a unified organization to develop and fund a state-approved paramedic training program. Under Dr. Pulcini's leadership the Metropolitan Evansville Emergency Services Council found its beginning.

During the five years since the EMS Council's inception, Dr. Pulcini has been involved in every facet of the model organization—presiding over meetings which often lasted past midnight, appealing to the public when politicians' commitments wavered, and steadfastly maintaining before the council and the community his vision



of what it would mean in lives saved and bodies mended. In 1982 Dr. Pulcini was presented the first Physician Community Service Award given by the Vanderburgh County Medical Society. James A. Robertson, M.D., who presented the award, stated, "No one who participated in the work of the EMS Council believes the program would have succeeded without Dr. Pulcini's patience, wit, diplomacy, and unending hard work."

In addition to its major focus on the paramedics program, the Council has instituted a Letterman Exchange Program, formulated a pre-hospital algorithmic protocol, endorsed an IHERN protocol, and been instrumental in upgrading all emergency medical services in the community.

Dr. Pulcini has also found the time and commitment to be a leader of organized medicine. He has served on the Vanderburgh County Medical Society Board of Directors, recently completed a term as president of the First District Medical Society, and is now the president of the Vanderburgh County Medical Society. He is certified by the American Board of Plastic Surgery and practices in Evansville where he resides with his wife and four children.

ACTION: Filed.

It is my pleasure this evening to bring you greetings on behalf of the Indiana State Medical Association Auxiliary. Since I am number 13 on the agenda and follow old business, I'll keep my remarks very brief.

In September we conducted two regional conferences where we brought the president, president-elect and committee chairmen from the county auxiliaries for a learning session. Our special thanks to Don Foy, executive director of ISMA, who interrupted his busy schedule to speak at both sessions on current legislation. It was timely for the FTC crisis.

I just returned Tuesday from Chicago where I attended the Leadership Confluence along with a delegation of 12 from Indiana. The most interesting session was on Time Management. We learned the three D's of leadership—Do, Delegate or Dump.

I wish I could report that we had 100% membership of the spouses of the Indiana plysicians in the Auxiliary, but unfortunately, we do not. What a shame; we are losing a double voice for medicine. Please encourage your spouses to join if they are not members. We can accomplish things in numbers.

By the end of our fiscal year, April 30th, our Auxiliary membership had raised, in addition to AMA-ERF, over $65,000 last year for their communities. Doctors, for your one dollar donation per member to the State Auxiliary, you are getting a bargain. The Auxiliary is your best untapped resource.

This evening we would like to present the AMA-ERF check. It represents the combined monies raised by the Association and Auxiliary. For the second year in a row, Indiana University has received the largest single donation. The check this year is an increase of over $4,200 from last year. At this time I would like Dr. O'Neill to come forward and join me in this presentation. Dean Beering, would you come up to the podium? On behalf of the Indiana State Medical Association and Auxiliary, we would like to present this check for $59,372.97 to Indiana University School of Medicine.

(Response from Dean Beering):

I'm so glad this is happening because I've already spent it. I want to tell you how we've spent it. For the second year in a row your generosity has made possible the awarding of scholarships and fellowships to a series of medical students. Last year when we started this program we had 29 AMA-ERF fellows and scholars and this year I am happy to tell you we have 33 young people who divided the roughly $60,000 among them and, at this time when the cost of education is unfortunately higher than it was two years ago, this is a very welcome gift to these individuals and it enhances our educational efforts immeasurably. So our heart felt thanks on behalf of the students, faculty and staff of IU Medical School. I have here for you for the further efforts of fund raising the names of the students, the subjects in which they are doing special research and their home towns. Thank you very much.

(At this time recognition was extended to Auxiliary AMA-ERF Chairman, Mrs. Muriel Osborne, and the Past President, Marianna Irwin, under whose leadership in 1981 this outstanding contribution became a reality.)

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Address of the Student Council President Indiana University School of Medicine

David Stein

ACTION: Filed.

Good evening. This is indeed an honor to have the opportunity to represent the I.U. School of Medicine.

I am David Stein from Seymour, Indiana, and I did my undergraduate study at Wabash College. I am representing the I.U. School of Medicine as the president of the Student Council. The Student Council is composed of the four class officers from all four medical classes, a regional campus student representative and members of various committees and organizations. The Council functions through class committees as well as through faculty committees and attempts to represent students in all academic and other areas of concern. One such organization the Council has representatives to is the ISMA. The current student delegate is Gordon Hughes, a sophomore, and the alternate delegate is Steve Foley, a junior. The school and student body would like to thank you for providing support in sending our delegates to the AMA meetings. Gordon and Steve report to the Student Council concerning ISMA and AMA activities and issues and help keep the students in the medical school abreast of the activities of organized medicine.

There have been several new additions to the campus near the medical center. At the top of the list is the $21,500,000 Natatorium and the new track. These facilities are made available to students during announced hours for a $6 yearly athletic fee. Another new structure is the Ronald McDonald House, formally dedicated on October 14th. This, as you all know, will provide housing for parents of children in Riley Hospital. It is located on Michigan St., just south of the medical center.

Last year tuition rose another 15%. This, together with the generally inflated cost of living, has driven up the estimated cost of a year's education in I.U. medical school to $9,000-12,000. Fortunately, students for the most part were able to obtain low interest loans this year. However, the low interest loans may be expected to continue to dwindle in number, especially such loans as Health Professions Student Loans. Thus, your foresight in establishing Resolution 81-28 (Medical Student Loan Fund) at last year's state meeting continues to demonstrate your desire to help the medical student. I know the addition to the pool of loans will be greatly welcome.

Students at the I.U. School of Medicine are showing increasing interest and involvement in organized medicine, serving as representatives to several national organizations, and committees of the ISMA. You have added to the awareness students have of organized medicine by providing membership to the ISMA for all I.U. medical students.

Again this year, for the third time, the ISMA sponsored a student reception here today from 3-5 p.m. At that time several trustees and Dean Beering were present to answer questions students may have had concerning ISMA. Students also had the opportunity at that time to talk with practicing physicians and administrators in anticipation of their futures in medical practice and had the reassurance that our ultimate goal of being an M.D. is attainable. I feel the ISMA reception was well received by all parties concerned.

In conclusion, I would like to thank Dr. James Carter, dean for Student Affairs, for his guidance given to the Student Council and for his friendship. I would also like to thank Gordon Hughes and Steve Foley for their hours of preparation and perseverance to keep the Student Council current with the activities of the ISMA. Finally, I want to thank the ISMA for allowing me to report this evening. Over the past several years there has been increasing exchange occurring between ISMA and the medical students and I am sure that with our continued interest and with your assistance we will continue to become further intertwined.

Fifty-Year Club Response

Dr. Olga Bonke-Booher of Indianapolis presented the following response to ISMA members on behalf of the Fifty-Year Club:

"President O'Neill, Dr. O'Neill's nice medical family here, in-coming President Knote, officers, honored guests, fellow supporters of the Indiana State and American way of the practice of Medicine—all. We neophytes in the Fifty-Year Club are most appreciative of your gracious recognition. To say we are glad to be here is a gross understatement—the alternatives are not inviting.

"Over the years—these many years—I have had an antipathy for people saying they were speaking for me. So I do this with some trepidation. But I believe I am safe—perhaps 90% so—and that is a good percentage—that what I say expresses the sentiments of those of us who have reached this Golden Anniversary.

"We chose the path we wanted to take;

"We cared deeply about walking it;

"We found joy in the journey.

"We are grateful for our successes, regretful for our failures—but we are not spending much time in either self-congratulation or self-condemnation. A little of that is usually enough.

"And we do thank you—fellow travelers on this road—the practice of Medicine—for sharing the trip, and making it more enjoyable and more meaningful."

Report/Supplemental Report of Chairman, Board of Trustees

Paul Siebenmorgen, M.D.

ACTION: Filed.

SUPPLEMENTAL REPORT

I hope you have already taken time to read the report of the chairman of the Board of Trustees as printed in THE JOURNAL and Delegates' Handbook. Since the writing of this report to meet the printer's deadline, many additional items of interest to this House have surfaced and thus I would like to continue with the chairman of the Board's report with these comments:

In response to last year's Resolution 81-1, the Board has submitted a resolution (82-14) recommending a revision in the Executive Committee structure.

A plan for the development and administration of the Student Loan Fund has been formulated by the Board and is included in your delegates' packet.

(Response to Resolution 81-28):

An Ad Hoc Board Committee has been appointed to study the situation of Free Standing Emergency Care Centers. They have met, identified some special areas of concern, and have been in contact with the AMA which has an ongoing study on this subject. The committee at present is awaiting some information and/or guidance.

(Response to Resolution 81-30):

The Board approved a proposal by the Indiana National Bank in which all ISMA members may, if they choose, enter into a credit card program using patients' Mastercard or Visa to pay for medical expenses. The program should help a cash flow problem in the doctor's office often caused now by the delayed payment by third-party payers. The information concerning this credit card proposal should be reaching your offices while you are at this meeting.

The Board accepted the 1983 Proposed ISMA Budget from the Executive Committee and has referred it to the House noting that no dues increase is needed under present ISMA programs. There has been no dues increase on behalf of the ISMA since 1975.

The Board approved the concept of the ISMA purchasing an airplane upon the recommendation of the Executive Committee after months of study when it became evident that the cost of an ISMA owned plane would be cost effective and would not increase the travel budget of our Association. The Board mandated that a financial report of the operating costs, time saved, purpose of trips, etc., be formally reported at each Board of Trustees meeting for evaluation.

The Board has spent hours studying the problem of discriminatory paying by third-party payers. One outgrowth of that discussion has led to Resolution 82-6, to be considered by this House. Another outgrowth was the decision to have our legal advisors meet with outside legal counsel concerning these problems and some of the special concerns of the VIP program. After due consideration by our legal staff, the outside counsel, and our Board of Trustees, the Board has formed an emergency resolution to be presented to this House. The Board urges everyone to consider the resolution carefully and has asked the speaker of the House for a special time to be set aside in the Reference Committee for discussion of the emergency resolution—a time when all members could be available for consideration and comment.

One last item of business, Resolution 81-11; the Board did not complete its implementation assignment. The Constitution and Bylaws Commission's report, which was received at its last meeting, was not acceptable to the Board and because of the complexity of ideas, phraseology, and structure, the Board simply did not have time to develop an alternative or acceptable solution. Work, however, will continue unless, of course, this House has other desires.

Thank you for your attention and let me say that the Board is dedicated to carrying out the wishes of this House to the fullest. I personally admire the dedication of each member of the Board.

REPORT (Prepared prior to Annual Convention):

This year, my first as chairman of the Board of Trustees, has indeed been a busy one and a demanding one. Upon election to this post, I dedicated myself to dissemination of the information of Board actions to the membership; to make myself available to hear the needs and suggestions of the membership; to represent the ISMA interest when appropriate to the best of my ability in the medical, political, business and legal arenas; and to conduct efficient Board meetings with open and thorough discussions leading to wise and informed decision making.

With these goals in mind, I would like to lay before you the journey taken this year by your elected chairman of the Board of Trustees. Continuing the excellent work of my predecessor, we have continued sending to the membership a summary of Board actions soon after each Board meeting. We hope each of you took time to "See Ben Morgen's Notes" of these actions.

I have attended 10 of the 13 ISMA district medical society meetings, three ISMA Regional Leadership Conferences and the Legislative Leadership Conference, the ISMA Auxiliary Annual Convention Dinner, 10 ISMA Executive Committee meetings, three IMPAC Board meetings and four business/medicine coalition meetings. In addition, I have helped to start a new coalition in Terre Haute, have attended numerous ISMA committee, sub-committee, and commission meetings, and have presided over seven ISMA Board of Trustee meetings. I spent five days at the National Conference on Malpractice in California and presented a seven-page formal summary report to the Board.

At the AMA level, I attended the five-day December House of Delegates Interim Session in Las Vegas, the three-day February Leadership Conference in Chicago and the six-day Annual AMA meeting in Chicago in June. With our ISMA leadership, I visited both of our Indiana Senators' offices and several representatives' offices during our annual ISMA three-day Washington Visitation in April.

I have attended several of the organizational meetings of the Indiana Physicians Insurance Companies, including a three-day workshop in Chicago. I served, once again, as the physician-of-the-day at our State Legislature, attended the Governor's two-day confer-

ence on higher education, and continued for the seventh year as an officer of the Indiana State University Board of Trustees on whose campuses the Terre Haute and Evansville Centers for Medical Education are housed.

I also served as a member of the Associate Clinical Faculty and as chairman of the Citizen's Advisory Committee to the Terre Haute Center, was re-elected to the Executive Committee of the Governor's appointed Statewide Health Coordinating Council, attended the board meetings of the Indiana Academy of Family Physicians and presided at their past president's breakfast, and of course, attended a goodly number of luncheons and other meetings with persons concerned with ISMA Board policy and decisions.

Now, perhaps more meaningful to you and certainly more importantly, I would like to highlight some of the major issues that occupied the concern of the ISMA Board of Trustees during the year:

- Continued attention was directed by the Board to legislative issues and, as a result of this emphasis, Regional Leadership Conferences were held throughout the state to establish more direct communication between the individual practicing physician and his legislative representatives. Legislators who attended the conference advised physicians that they must become more visible, communicate with their legislators and participate in the legislative process.

- The Board supported Dr. O'Neill's recommendation to create an Ad Hoc Commission on Scientific Affairs to deal directly with such medical matters as health effects of environmental contaminants, genetic counseling and birth defects, use of tranquilizers and antidepressants, etc. Many in-depth reports on such medical matters as these are produced by AMA councils and committees with recommendations. The purpose of the new committee would be to evaluate such reports concerning their adaptability as ISMA policy and provide, when requested, authoritative professional information to the membership and the public.

- The health planning program was reviewed thoroughly by the Board. The Board's position on the issue involved advising the Indiana Commissioner of Health that ISMA in in favor of voluntary health planning, seeks repeal of both P.L. 93-641 and Indiana's health planning law, and encourages physicians to participate in voluntary health planning in their communities.

- In mid-December, 1981, a special meeting of the Board was held to review segments of the Preliminary State Health Plan. The Board, in this all-day meeting, discussed and made recommendations on those portions of the plan that dealt with respiratory health, emergency medical services, health problems of the aging and the aged, heart disease, health care costs, medical group practices, infant and young adult health, and community health services.

These recommendations were forwarded to the Health Commissioner for inclusion in the "Plan." The Commissioner expressed sincere gratitude to the Board for its thorough critique of the "Plan."

- For the first time in the history of the Association, the members' health and dental insurance, on approval of the Board, was transferred from Blue Cross/Blue Shield to the Lincoln National Life Insurance Company whose bid for the business produced greater benefits at lesser costs.

- President O'Neill advised the Board that he intended to appoint an ad hoc ISMA Malpractice Advisory Committee with the hope that it be made a permanent committee to monitor the status of malpractice in the state and be in a position to present factual information to the Commission on Insurance, the Legislature and the membership.

- The sale of Indiana Physicians Investment Company (IPIC) stock continued to be discussed during the year and continued to receive the support of the Board, although stock sales have not measured up to the anticipated participation. Efforts have continued, however, by members of the Board, in encouraging ISMA members to participate. It continues to be the hope of the ISMA officers and Board that the membership will see the value of Indiana physician ownership of IPIC and IPLIC and purchase stock in the company.

- A major step in serving ISMA members was instituted when the Board approved the formation of a casualty insurance company to write medical liability insurance jointly with the Physicians Insurance Companies of Ohio, Michigan and Kentucky. The major reason for the decision was to aid Indiana physicians in controlling their own medical liability destiny and provide a long awaited, much needed and much requested service to the membership.

- The Blue Cross/Blue Shield Voluntary Incentive Program (VIP), inaugurated abruptly and without prior official discussions with ISMA, created a considerable uproar by ISMA members and the Board of Trustees, resulting in a greater breach than ever in the relationship between the Blues and Indiana physicians. The Board directed that the membership be constantly advised of new developments in the program, which has had a questionable legal status from the outset, especially the provision of the VIP program which refuses to accept Assignment of Benefits from non-participating physicians. The Blue Shield Board was requested by the President of ISMA, Dr. O'Neill, to "delay implementation of the program to allow a reassessment by the Blue Shield Board."

As a result of this program and in view of the cessation of any official relationship with Blue Shield, the Board has elected to introduce Resolution 82-6, "Rescinding Resolution 62-26." The new resolution resolves that ISMA continue to "oppose any third party payment program that delineates physicians by lists on assignment—or payments or treats policyholders without uniformity."

These were essentially the major concerns of the Board during the year. We had excellent participation by the trustees, the alternates, president of the Auxiliary, and the ISMA officers.

Status of 1981 Resolutions as of September 1982

81-1 (Executive Committee Structure)—An ISMA Board of Trustees Ad Hoc Committee is studying. **Action Pending. (See Resolution 82-14)**

81-2 **Not Adopted.**

81-3 (Use of Human Chorionic Gonadotropin by Weight Reduction Clinics)—**Placed in the ISMA Policy Manual.**

81-4 (Pro-rated Monthly Dues for New Members)—**ISMA dues are now calculated on a pro-rated monthly basis.**

81-5 (Delinquent Dues of Major Office Holders) — **Bylaws amended.**

81-6 **Not Adopted.**

81-7 (Change of ISMA Districts by DuBois County) — **Bylaws amended.**

81-8 (Alternate Trustee Vacancy)—**Bylaws amended.**

81-9 (Oath of Office for Delegate and Alternate Delegate)—**Placed in ISMA Policy Manual.**

81-10 (Confidentiality of Cause of Death on Natural Death Certificates)—**Published in Heartbeat.**

81-11 (Resident Medical Society)—Board of Trustees is studying. **Action Pending.**

81-12 (Medical Student Society)—**Implemented.**

81-13 **Not Adopted.**

81-14 **Not Adopted.**

81-15 (Liability Insurance for County Officers)—**Now being offered.**

81-16 (Dental Insurance for ISMA Members)—**Now being offered.**

81-17 (Practical Political Principles Workshops)—**Implemented.**

81-18 (ISMA Legislative Update to House of Delegates Members) — **1st Resolve Implemented. 2nd Resolve Pending.**

81-19 (Statewide Review Authority)—**Concept approved by Medical Services Commission; still under discussion.**

81-20 **Not Adopted.**

81-21 (Recognition of Otis R. Bowen, M.D.)—**Implemented.**

81-22 (Change of ISMA Districts by Huntington County)—**Implemented.**

81-23 **Not Adopted.**

81-24 (Clinical Laboratory Tests Referred out of State of Indiana)—**Article by author of resolution appeared in June issue of THE JOURNAL.**

81-25 (Elimination of PSRO Legislation)—**Discussed with Congressmen during Washington Visitation.**

81-26 **Not Adopted.**

81-27 (ISMA Opposition to Concept of Home Deliveries)—**Placed in ISMA Policy Manual.**

81-28 (Medical Student Loan Fund)—**Implemented.**

81-29 (Decimalized Version of Constitution and Bylaws)—**To be referred back to 1982 House of Delegates.**

81-30 (Free Standing Emergency Care Centers)—**Board Ad Hoc Committee investigating.**

81-31 (Malpractice Actuary)—**Independent actuarial analysis being undertaken.**

81-32 (Statewide Utilization Review Organization)—**Being considered by Medical Services Commission.**

81-33 (Elimination of Designation and Funding for HSAs)—**Accomplished.**

81-34 (National Conference on Medical Costs)—**Introduced by AMA Delegation at the 1982 AMA House of Delegates.**

Report of the Executive Director

Donald F. Foy

ACTION: Filed.

We are again pleased to report that ISMA's financial condition continues to be sound. As a result, we are projecting a balanced budget for fiscal year 1983 (beginning October 1, 1982) with no increase in dues. It will be eight years since ISMA dues were last increased—a period during which inflation ravaged the economy. The chief factor responsible for the Association's financial stability is the continued increase in its investment income. This has been enhanced by additional membership programs and activities of a revenue-generating nature.

It is important that the profession take heed of the concept that as Government does less, medicine must do more! The so-called "New Federalism" proposed by the Reagan Administration will have a profound impact on the practice of medicine and will be accompanied by many additional opportunities and challenges.

Physician Surplus—Make house calls? Schedule evening office hours? Take a job as a prison doctor? Work in an HMO for a salary? Join the military? Like them or not, these are some of the options physicians are likely to be pondering in the years just ahead, according to some observers, as the supply of physicians increases dramatically. Several years ago the Graduate Medical Education and National Advisory Committee (GMENAC) predicted a physician surplus by 1990, with many changes in medical practice as a result. Critics of the committee report may have impugned its credibility somewhat by attacking the methodology used in making projections. Nevertheless, some of the committee's predictions are already being felt in certain areas, even in Indiana.

At the same time, the number of other health care providers—nurse practitioners and clinicians, physicians' assistants, psychologists, optometrists, etc., to name only a few—are increasing even more rapidly. Competition will undoubtedly become more intense as these workers provide more and more services formerly offered only by physicians.

Rivalry between the general physician and the specialist will sharpen and neither will be prone to refer patients to the other unless absolutely necessary. Physicians can be expected to form more full-service partnerships, build more emergency clinics, primary care centers, and free-standing obstetric and surgical facilities to compete with hospitals.

The GMENAC Report also envisions growing pressure on hospitals to decrease the entry of alien physicians to their medical staffs, either for training or full privileges. This pressure will also be felt by U.S. citizens who are graduates of Mexican and Caribbean medical schools.

One of the major concerns of the GMENAC chairman, Dr. Alvin R. Tarlov, is that as the availability of services increases, people shift doctors more frequently. Patients often take it upon themselves to seek other opinions or duplicate services. Some patients are already using two or more doctors without telling one about the existence of the others. The biggest danger in all of this is that the traditional doctor-patient relationship, a covenant of confidence and trust, will be replaced by a legal, contractual relationship and yet, according to Dr. Tarlov, "This traditional relationship is the most effective way yet found to diagnose, treat and prevent disease." It is interesting to note that the Texas Medical Association has selected as one of its major priorities for 1982 and beyond that of identifying, developing and encouraging programs that will support and enhance the relationships between patients and physicians.

Rising Health Care Costs—Continues to be viewed as a major source of concern to government, industry, and third-party payers. The issue is a complex one with general inflation, improved technology, the growing ratio of elderly people and hence degenerative diseases and the greater availability of care due to increased insurance coverage—all sharing most of the blame.

Physicians constitute about 19% of the total cost of health care and yet we often receive most of the blame because it is said that we are responsible for 70% of the total cost of health care due to our control over utilization. What medicine's critics fail to recognize, however, is that while physicians do exercise some degree of control over utilization of services, they have little to do with the costs of those services. These costs are determined by others and particularly hospitals.

Indicative of the Indiana General Assembly's concern with increasing health care costs as an inhibitor to expanded economic growth is the formation of an Interim Legislative Study Committee on Health Care Costs. The committee will meet several times during the summer to hear testimony from various sources. The ISMA is monitoring these meetings closely, working closely with members of the committee, and will submit testimony of its own at one of the committee meetings. The committee is expected to submit its report to the General Assembly by Nov. 1, 1982.

The key to the new market-oriented strategy toward the health sector rests on a fundamental reform in the tax treatment of health insurance. As you know, under the tax law that has prevailed for several decades, an employer's contributions to the health insurance of an employee is not regarded as taxable income. The tax treatment has been the central obstacle to the emergence of a well-functioning market process in the health, and especially the hospital sector. Once this obstacle is removed, a healthy competition should emerge between fee-for-service insurance plans featuring patient cost sharing (via deductibles and coinsurance) and prepaid health maintenance organizations. Many believe that without government regulation, this competition alone may reduce the source of the inefficiency and cost inflation in the health care industry.

It is not surprising, then, that over the past several decades most of the population gradually has obtained complete first-dollar hospital insurance coverage that virtually has eliminated cost-sharing for hospital care. Today well over 90% of all hospital revenues from patient care comes from private or public insurers, and less than 10% from patients directly. Is it any wonder why patients complain about out-of-pocket expenses in connection with physician services and why physicians

are blamed by the public for escalating health care costs?

For years, physicians have carried the burden of an ill-conceived and mythical notion that they are paid excessively and are the culprits for the high cost of medical care. In a very revealing study, Dr. Assad Meymandi, president-elect of the Cumberland County Medical Society of Lafetteville, N.C., took 18 randomly selected jobs listing the average wage in 1950 and at the end of 1979. He then calculated the number of working hours needed in each job category to purchase two randomly chosen medical services in each year. Average fees for the two services, appendectomy and a regular physician office visit, were: appendectomy, $75 in 1950 and $300 in late 1979; regular office visit, $5 in 1950 and $15 in late 1979. In every instance it took fewer hours of labor for any of the randomly selected jobs to purchase these same medical services in 1979 than it did in 1950. Thus, when one compares apples with apples and oranges with oranges, there is compelling evidence that the physician is not paid excessively nor is he the culprit for the high cost of medical care.

The market cannot promote efficiency when a key ingredient is absent. This ingredient is significant consumer cost-sharing. Without consumer cost-sharing, the inefficiency and inflation of the health sector would prevail in any other sector of our economy. In effect, 100% hospital insurance is a system of bill-splitting. The individual's insurance premium reflects a national average rather than his own hopsital expenses; therefore, he has no incentive to be concerned about the amount of his own hospital bill because it will not affect his financial burden.

Coalitions—For the first time the right representatives are being asked to sit down at the conference table and acknowledge that many different parties—physicians, hospitals, business, labor, management, insurers, patients—have a legitimate stake in holding down the total cost of medical care. There is recognition that this is a joint obligation and therefore will require a joint approach. This is why the AMA has joined with five other national organizations, including the AFL-CIO, to call for the development of community coalitions to confront the cost problem.

In Indiana the ISMA and the five largest Fortune 500 companies home-based in Indiana have joined together to form the Indiana Business-Medicine Coalition. The coalition's primary function is to promote dialogue between business and medicine in order to identify problems and jointly explore solutions in the interest of promoting cost-effective medical care. Consistent with this purpose, it was agreed that the objective of the coalition would be two-fold: 1) To elevate the general level of awareness among physicians of industry's problems; and 2) To develop the appropriate resources and resource materials to deal with these problems.

The first local pilot business-medicine coalition was formed in Columbus at the invitation of the county medical society. The coalition meets regularly and serves as a model for other locales to emulate.

Another business-medicine coalition was established recently in the Muncie area and is meeting regularly. Many positive activities and projects are under way which will have an impact on containing rising health care costs. Additional business-medicine coalitions are being developed in Terre Haute, Elkhart and Kokomo. The statewide Business-Medicine Coalition will invite local coalitions to meet with it periodically to exchange information, monitor progress and discuss projects.

The statewide Business-Medicine Coalition elected not to expand at this time to include additional corporations or provider groups until the coalition has developed more of a track record. The group feels that the addition of other corporations and organizations might tend to confuse the issues further and impede progress. Of course, local community coalitions are certainly free to include hospitals, the Chamber of Commerce, etc., if they so choose.

Ad Hoc Committee on Scientific Affairs—You may or may not be aware that the ISMA has no scientific committee or commission to deal with scientific matters. Nevertheless, the ISMA is frequently solicited for an opinion on a variety of scientific issues and developments. The ISMA should be in a position to be more responsive to such requests.

To remedy this problem, Dr. Martin O'Neill has appointed, with the Board of Trustees' approval, an important new committee—the ad hoc Committee on Scientific Affairs, which is composed of the chairman or president of each of ISMA's Specialty Sections. Such a committee should certainly be able to provide ISMA with broad input in terms of dealing with scientific issues. The committee will probably not meet more than two or three times a year since much of its business will lend itself to handling through correspondence and/or telephone conference calls. If the committee functions successfully, it is hoped that the House of Delegates may accord it permanent status.

Malpractice Advisory Committee—Another very important committee appointed by Dr. O'Neill, with the Board's concurrence, is the Malpractice Advisory Committee. Recognizing the malpractice issue to be the number one priority presently confronting organized medicine, the committee will function as an ongoing monitoring mechanism (in the absence of the Governor's Malpractice Study Commission) providing recommendations and appropriate input to governmental commissions, the legislature and the insurance commissioner. Ideally, this committee will provide direction to the formation of ISMA policy and strategy in the malpractice area.

The committee met earlier this year and received a preliminary report from ISMA's independent actuaries concerning the Patients' Compensation Fund. These actuaries from the firm of Shinnerer and Associates Inc. of Chicago were critical of an earlier study of the Patients' Compensation Fund conducted by J. Edward Faust Jr. at the direction of the 1981 Interim Malpractice Legislative Study Committee. Essentially, ISMA's actuaries do not believe that the data-base maintenance by the Insurance Department is sufficient or adequate to support sound projections about the Patients' Compensation Fund. Because Medical Pro-

tective, being by far the largest carrier in Indiana, should have the most complete data base, ISMA's Malpractice Advisory Committee recommended writing to the Medical Protective Company requesting certain types of information. To date ISMA has had no response from Medical Protective to its request.

Also, the Faust Study recommended an increase in the surcharge levied on each covered provider's malpractice insurance premium from 10% to 40%, effective Sept. 1, 1982. After discussions with the Insurance Commissioner, he became persuaded that a more modest increase in the surcharge might be quite adequate for the time being. Consequently, the commissioner actually made the recommendation to the 1981 Interim Legislative Malpractice Study Committee that the surcharge be increased to 25% and this was later adopted by the 1982 General Assembly.

Formation of Physicians Insurance Company of Indiana (PICI)—Even though availability of medical professional liability insurance is not currently a problem in Indiana, accountability of those companies which control this vital coverage for physicians is a continuing dilemma. This is one of the principal reasons why ISMA has formed the Physicians Insurance Company of Indiana (PICI), which was done at a special meeting of the Board of Trustees, April 21, 1982. Medical professional liability insurance companies should be highly accountable in a responsible and appropriate manner for their claims and underwriting procedures, their mechanisms for setting rates, and for communicating loss data to physicians in an effort to help contain the rise in the number of claims and suits. This information has simply not been made available through a physician-owned company, whose underwriting and claims committees will consist of all Indiana physicians. Accordingly, through the establishment of a stock insurance company, controlled by Indiana physicians and the IMSA with a physician-dominated board of directors, Indiana physicians can finally control their own medical liability insurance destiny and take advantage of the most favorable underwriting climate in the country.

PICI, which received its Certificate of Authority from the Indiana Insurance Department on July 1, 1982, will provide certain distinct advantages for Indiana physician policyholders. A PICI policy will guarantee that no monetary settlement will be made without the physician's written consent prior to court judgment of any covered claim or suit. Furthermore, physician policyholders will not be surcharged for any claims or suits that may occur.

Indiana Physicians Life Insurance Company (IPLIC)—The Indiana Physicians Life Insurance Company (IPLIC) was formed as a subsidiary of Indiana Physicians Investment Company (IPIC), a holding company, and received a license to conduct business in Indiana in August 1981. The purpose of the company is to serve the life insurance and financial planning needs of physicians, their employees and family members. Indiana Physicians Life will offer a complete line of life insurance products and services specifically tailored for physicians. In addition to excellent life insurance products, the company will introduce such exciting new products as: Universal Life, Retired Lives Reserves, and Group IRAs.

IPIC stock provides Indiana physicians the opportunity to own their own life insurance company. Unfortunately, the sale of IPIC stock is progressing slowly and time is running out. The offering expires in September 1982 and, unless a substantial amount of stock is repurchased soon, Indiana physicians will wind up being minority owners of an Ohio physician-owned Indiana company. Most of the profits and benefits will accrue to Ohio physicians and rightfully so since they advanced the capitalization. Buying IPIC stock may not be viewed as an investment in the traditional sense, but it is an investment in your Association which will provide direct benefits to members through stabilization of dues, improved membership benefits, etc. as the Life Company (IPLIC) becomes more successful. Purchasing only 50 or 25 shares of IPIC stock broadens the base of participation and is not going to work a hardship on anyone.

Development of a National Health Policy (Priorities)—At its June 1982 annual meeting, the AMA House of Delegates approved development of a National Health Policy over a two-year period. This important undertaking will involve a variety of professional, business, labor, and insurance organizations and carries a fiscal note of approximately $3 million. The purpose of the project is "To give the private sector the opportunity to produce a conceptual and philosophical framework that will be consistent over a multiple year period as the basis for specific action plans and proposals that are responsive to the particular social, economic, scientific, educational and political circumstances that evolve from year to year." The National Health Policy will provide the opportunity for AMA and others in the health sector to abandon the traditional year-by-year piecemeal development of health policy in response to the short-term pressures of the moment in favor of a long-term, considered approach that will stand the test of time.

The Federal Trade Commission and the Professions—The activities and operation of the Federal Trade Commission have been under intense Congressional scrutiny in recent years. Of major concern to the medical profession has been the FTC's actions designed to prevent professional self-regulation and to regulate the practice of medicine.

On March 23, 1982, the U.S. Supreme Court announced that it had divided four to four, with one Justice not participating, in the AMA case. Consequently, the Court failed to resolve the important questions presented as to the jurisdiction of the FTC over the professions. The result is that whether and to what extent the FTC has authority to regulate the professions are issues that must be resolved by the Congress.

The AMA and your ISMA have been vigorously supporting a bill passed by the Senate Commerce Committee that clarifies that FTC has never had and should not have jurisdiction to regulate the professions. The FTC was created to deal in areas of industrial and commercial business in which regulation by an administrative agency with business

expertise was believed more desirable than judicial enforcement. Organized medicine does not advocate exempting the professions from the federal antitrust laws. Rather, it believes that actions in federal court by the Justice Department, by the states, and by private individuals are appropriate and effective means of dealing with such issues. Therefore, the AMA and the federation are advocating an amendment to the FTC Act to clarify that the FTC lacks jurisdiction over state-regulated professions and their associations.

The two principal bills in the Senate are S.1984 and S.2499. S.1984 would amend the FTC Act to clarify that there is FTC jurisdiction over the professions, prohibit FTC jurisdiction over the professions, prohibit FTC preemption of state laws and make major procedural changes in FTC proceedings. S. 2499 would, among other changes, define unfair acts or practices, prohibit FTC preemption of state laws on scope of professional practice of state-licensed professionals, and extend the congressional veto power on trade regulation rule provisions.

In the House of Representatives, H.R.3722, which has more than 200 cosponsors, would place a moratorium on FTC activities regarding state-regulated professions and professional associations. Your ISMA along with the AMA has been working hard to secure cosponsors for H.R.3722. Thus far, at least six Indiana Congressmen have signed on as cosponsors of H.R.3722.

The vital question of whether the FTC will be allowed to continue its self-appointed role of regulator of the professions will soon be decided. This issue has been described as the most critical challenge facing the profession in the last 15 years.

Repeal of Health Planning—The ISMA has been working hard to gather support from Indiana's Congressional delegation for the repeal of the original Health Planning Act (P.L. 93-641). Indiana Congressmen have been contacted on several occasions urging their cosponsorship of H.R. 4554 that would repeal the Health Planning Act. More recently, Senator Dan Quayle introduced a Bill, S. 2720, that would provide transitional funding for the creation of a new, voluntary, nonregulatory health planning program. This legislation would repeal the existing Health Planning Act, and appropriate $20 million to be used by the states for voluntary, locally-based health planning, none of which could be used for regulatory purposes or certificate-of-need programs.

Blue Cross-Blue Shield VIP Program—The introduction by Blue Cross-Blue Shield of its VIP program earlier this year has generated great consternation among ISMA members and occupied a considerable amount of time on the part of your Association's leadership. The ISMA believes it has an obligation to protect the rights of the nonparticipating physician and has sought to keep the membership informed of new developments associated with the program. Consistent with this approach, the ISMA will continue to monitor the experience as the VIP program is implemented and evaluate options for possible legal action since the larger issue involved here is whether physicians will be able to retain the prerogative to set their own fees.

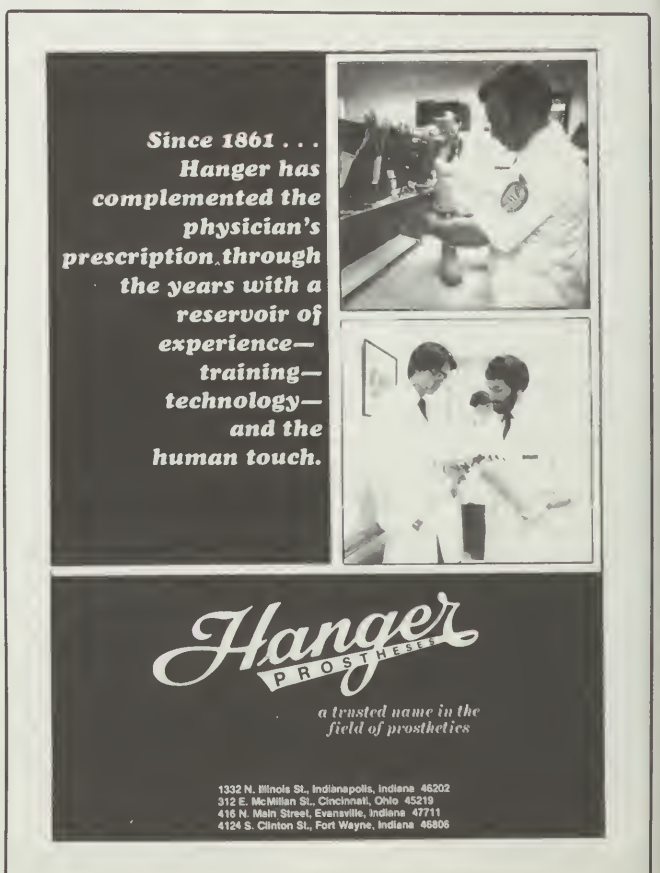
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Report of AMA Delegation

ACTION: Filed.

Report of AMA Delegation Las Vegas, Dec. 6-9, 1981

Although referred to as a "quiet" meeting, with few major issues surfacing for organized medicine, the Indiana Delegation and the entire AMA House found themselves dealing with a multitude of significant reports and resolutions which, albeit not sensational in scope, do have broad implications for medical practitioners in 1982.

The delegation also quietly launched in low-key style a campaign to elect Dr. Lowell H. Steen, Hammond, to the office of president-elect of the AMA in June 1982.

Among the issues considered were health care coalitions, CME rules, competition bills, student and resident participation in AMA affairs, finances of the AMA, HMO cost comparisons, physician-hospital competition, nuclear war consequences, and estrogen therapy—all indicative of the broad scope of AMA's involvement in the many issues of medical concern.

Held concurrently with the AMA meeting was the Annual Forum on Medical Affairs sponsored by the Conference of Presidents and Other Officers of State Medical Associations, of which Don Foy, ISMA's executive director, serves as secretary-treasurer.

Dr. Gilbert M. Wilhelmus, Evansville, participated in the program and told the group that the legislative reforms enacted in 1975 under then-Gov. Otis Bowen, M.D., created an optimistic climate in Indiana.

"The comprehensive legislative package, including a new statute of limitations (limited to two years from occurrence, not discovery), a ban on naming a dollar amount sought in a lawsuit, screening panels, a $500,000 cap on awards, mandatory risk-management programs, and the creation of fact-finding panels, have today "made insurance easy to obtain," he stated.

"In Indiana, we now have 25 companies writing insurance, and they include the best insurance companies in the U.S. In 1975, we had none. The insurance monster may not be dead in Indiana, but it is severely hemorrhaging," he said.

The AMA executive vice president, James H. Sammons, M.D., said that despite the phenomenal growth of physician-owned insurance companies and the advent of AMACO, the AMA company, to provide reinsurance, "It is now clear that the crisis never was under control.

"Although our 43 physician-owned companies now write $600 million in premiums to protect physician members and although AMACO has assets of $25 million, we have only been able to buy more time against the crisis. Both the frequency and severity of claims continue to increase.

"A study of 75,000 closed claims between 1975-78 shows that the average award has increased 70% (from $26,000 to $42,500) and the cost of defending those claims has increased 73%. The number of awards exceeding $1 million is up, and the 'tail' between time of filing a claim and time of making an award has increased from 37 to 46 months. This means, of course, that inflation will take its grim toll on the eventual settlement," he said.

Following are actions on some of the issues reviewed by the House and its Reference Committees:

Peer Review Principles

The following principles for voluntary medical peer review were adopted by the House:

- Medical peer review is an organized effort to evaluate and analyze medical care services delivered to patients and to assure the quality and appropriateness of these services. Peer review exists to maintain and improve the quality of medical care.
- Peer review is a local process.
- Physicians are ultimately responsible for all peer review of medical care.
- Physicians involved in peer review should be representatives of the medical community and participation must be structured to maximize involvement of the medical community. Any peer review process must provide for consideration of the views of individual physicians, groups of physicians, or institutions under review.
- Peer review evaluations are based on appropriateness, medical necessity, and efficiency of services to assure quality medical care.
- Any system of medical peer review must have established procedures.
- Peer review of medical practice and the patterns of medical practice of individual physicians, groups of physicians, and physicians within institutions is an ongoing process of assessment and evaluation.
- Peer review is an educational process for physicians to assure quality medical services.
- Any peer review process must protect the confidentiality of medical information obtained and used in conducting peer review.

Heath Care Coalitions

Participation in health care coalitions was endorsed by the House.

The delegates took action after hearing a plea for action, which called for the delegates to act promptly to endorse a late report presented by the Board.

This report represents a further step in the corporate liaison activity begun three years ago by the Association.

The activity demonstrated that while the business community accepts the quality of health care offered, and is committed to accessibility and availability, it is concerned about the costs of care. There are 70 coalitions now formed dealing with these issues, and 40 more are in varying stages of formation.

Monitoring Competition Bills

In adopting two board reports summarizing recent developments on "pro-competition consumer choice" NHI proposals, the House of Delegates renewed AMA's strong concern that such legislation, despite offering some appealing aspects, must be monitored carefully to assure that the eventual consequences are not counter productive.

In directing the Board and the Councils on Medical Service and Legislation to continue such surveillance, the delegates defined the objective as "preserving accessibility of high-quality health care to Americans within the current systems of health care delivery," and defined the framework as working within the six principles approved at last June's Annual Meeting. Those principles include multiple choice of

plans, minimum benefits, equal contributions from employer and employee, non-taxable rebates to employees, a maximum contribution limitation, and provisions to disqualify non-complying employer plans.

Key concerns of the ongoing congressional debate over the "pro-competition" bills, the House noted, are the increase in health costs and the intensified effect this can have on attempts to restructure—to adverse effect—the current medical marketplace.

Health Care Competition Guidelines

In adopting a report on competition, the delegates stated that "the competitive approach should draw on the strengths of market functioning but recognize the social responsibility of physicians to provide patients with quality care."

In providing a "working definition" of competition in the market for medical services, the report points out that current AMA policy supports a market with elements of competition that:

- Place no limit on the number of properly trained physicians.
- Increase price consciousness among consumers.
- Promote cost consciousness among consumers.
- Improve the accessibility of information for both physicians and consumers.

In its discussion of the effects of increased competition, the report notes that the market for medical services is now in flux and will change even more rapidly in the future. A major cause of this change, according to the report, is the growing fiscal pressure in federal and state governments to curtail health expenditures. The presence of increased competition may cause some physicians and patients to alter their behavior in response to this changing environment.

CME Rules Tightened

The House unanimously adopted tighter standards for accrediting continuing medical education (CME) programs, but withheld final approval until seeing the handbook that will be used to implement them.

In a unanimous vote, the House tentatively approved the Essentials for the Accreditation of Sponsors of Continuing Medical Education contingent upon its subsequent approval of the Accreditation Council for Continuing Medical Education (ACCME) handbook, which is intended for use in evaluating national organizations, medical societies, academic centers and hospitals that offer CME.

AMA Financial Position

In seven years, the AMA's financial position has changed. In 1974, bank loans were required to meet the year-end payroll. The 1982 budget shows assets of $100 million, equity of $77 million, and projected reserves nearly equal to the operating expenses of $79.2 million.

Delegates approved a 1982 budget with anticipated revenues of $83.2 million and expenses of $79.2 million, returning to reserves $4 million.

Noting that the number of AMA employees has been reduced from 939 in 1980 to 881 in 1981 and that non-dues income now contributes nearly half of the AMA's revenues, the House cited the Association's strong financial position and commended the "excellent leadership of the Board of Trustees and effective administration of the executive vice president and his staff."

Students and House Staff

Students and house staff lost their bid for seats on the Board of Trustees and were denied access to executive meetings, limited to voting trustees and general officers of the Association.

One delegate, in his comments to the House said, "We do not object to the view that these people should be allowed to come to the Board of Trustees to be heard on issues that concern the students of this country, but we do object strongly to having them sit on the board of members."

HMO Cost Comparisons

An absolute, direct cost comparison between health maintenance organizations and traditional health care settings cannot be made, said the House, while adopting a Council on Medical Service report on the cost of care in HMOs.

The delegates adopted the report, deleting the statement that "the HMO approach to health care delivery may result in a type of care for enrollees at a lower total cost."

The question of whether to include the statement on potential HMO cost savings drew considerable discussion.

The Council report said, "Though our investigation reaffirmed that health maintenance organizations seem to be able to provide medical care to their members at a cost, including premium and out-of-pocket expenses, lower than that for care provided through the traditional third-party reimbursement system, the difference in patient population and the costs of their care must be noted."

Physician-Hospital Competition

Competition between hospitals and physicians became a debated issue in the House.

At issue was a series of resolutions and reports relating to the establishment of emergency care centers and satellite centers, many of which were sponsored by hospitals through specially formed hospital foundations.

An Indiana resolution called for the Association to establish an ad hoc committee to study freestanding emergency care centers, while another asked the Association to define true emergency medical centers and establish criteria for their operation.

In view of a study of those issues currently being conducted by the AMA, the reference committee chairman reported that his reference committee felt it appropriate to defer action on this matter until the task force had an opportunity to submit its report to the Commission on EMS and Board of Trustees for action and consideration by the House at the 1982 Annual Meeting.

Modification of Interim Meeting

The House authorized the speakers to appoint a five-member advisory committee to review the format and procedures of the Annual and Interim Meetings of the House.

Report KK of the Board of Trustees suggested a method by which the Interim Meeting could be shortened to two days in duration.

The committee will report to the

House at the 1982 Annual Meeting in June.

Other Actions

- Endorsed model legislation to ban the manufacture, sale, and distribution of imitation controlled substances, commonly known as "look-alike" drugs.
- Approved a board report on federal budget reductions approved by Congress this year, noting that the block-grant provisions of those reductions address many of the concerns of resolutions referred to the Board during last June's annual session.
- Approved a Board report noting that the Board and the Council on Legislation continue to review legislation that would provide income-tax credits for the purchase of health insurance.
- Called for continued monitoring of the development of regulations that cover the reimbursement for physicians in teaching hospitals with large Medicaid teaching loads.
- Called for continued monitoring of federal regulations that could be detrimental to the private practice of nuclear medicine.
- Supported legislation to delete the three-day prior hospitalization requirement for providing extended care facility benefits under Medicare.
- Opposed federal intervention into physician prescribing practices.
- Encouraged further scientific studies in an effort to determine the effects of acid precipitation on the population of the United States and Canada and agreed to communicate its concern over this possible health hazard to Congress.
- Allowed medical students to serve as delegates from state medical societies.
- Adopted Judicial Council Report A on the pros and cons of charging interest on delinquent accounts.
- Encouraged the Board of Trustees to allow a representative of the Resident Physicians Section and a representative of the Medical Student Section to attend board meetings when their input would be helpful.

Report of AMA Delegation Chicago, June 13-17, 1982

Indiana's hope for an AMA president came to an end in June when Dr. Lowell H. Steen, internist and past chairman of the AMA Board of Trustees, was defeated by Dr. Frank J. Jirka, a Berwyn, Illinois urologist, who was chosen president-elect of the AMA.

The ISMA delegation, officers and staff had waged a continuing campaign since December 1981 utilizing personal phone calls, letters and additional mailings in support of Dr. Steen. The mood of the delegation was that the race would be a close one but there was an optimistic attitude reflecting a victorious conclusion.

It was an understandably dejected AMA delegation who returned home to Indiana, but determined to evaluate its strategies in the national medical political arena and return to continue its efforts to place deserving and committed Indiana physicians to high offices in the AMA structure.

The delegation, as always, attended to the affairs of the House of Delegates, which heard a multitude of reports and resolutions ranging in subject matter from medical responsibilities in the event of a nuclear war to national health priorities.

Following are a few of the highlights of the meeting:

National Health Priorities

AMA delegates united behind the board to authorize the development of national health priorities.

The plan is expected to involve the entire spectrum of private medicine to establish priorities for how medicine will be practiced and reimbursed for the rest of this century.

The far-reaching idea was presented by the Board to delegates in the form of a two-page report, "Development of a National Health Policy" (NHP), that indicated the proposed policy would be developed over two to three years in two stages—"basic principles" and a "health policy plan"—at an annual cost to the AMA, mostly in staff time, of $1.5 million. An additional eight-page memo of explanatory material outlined preliminary plans for NHP steering and advisory committees with proposed organizational representatives—and preliminary plans for six broad work groups—with possible organizational representatives and "policy arenas" for discussion.

The title, "National Health Policy," received an "inordinately negative response during its hearings," the reference panel noted, suggesting the title, "Health Priorities in the United States," might be "better received by physicians in general."

Consequences of Nuclear War

The specter of a nuclear war and its aftermath rose again before delegates.

The level of concern among members was evident both in reference committee testimony and on the floor of the House. Evident, too, was the continuing belief that the AMA should take a leadership position in educating the public and other physicians about the consequences of nuclear war.

Delegates said, however, that the AMA also should forestall any tendency on the part of the public to fail to distinguish among the various uses of nuclear materials by publicizing the beneficial, medical use of radioisotopes.

The House adopted Board of Trustees Report KK, which details actions taken by the AMA in implementing Report DD.

AMA Dues Increase

AMA's net 1981 gain of $7.3 million over the operating budget of $68.3 million brought year-end equity to $76.3 million. This compares to late 1974 when the Association had no liquid reserves and was forced temporarily to borrow to meet its payroll. A special one-time $60 assessment was necessary to bail out the ailing finances.

The $30 increase in regular dues, first recommended in 1981 as part of a three-stage boost in the dues structure, brings annual dues for regular AMA members to $315. Delegates also increased dues proportionately for other membership categories, with the exception of medical students, whose dues are unchanged. Dues for residents were raised $10.

The new dues structure: regular members, $315; MDs in their second year of practice, $236; military MDs,

$210; MDs in their first year of practice, $158; resident, $45; students, $15.

HMOs

The AMA reaffirmed its opposition to the federal government's use of advertisements and other promotional mailings designed to encourage Medicare beneficiaries enrollment in health maintenance organizations (HMOs). The AMA also vowed to continue to seek legislation that would prohibit the use of public funds to promote one form of medical care delivery over another.

Medicaid

The most valuable immediate contributions to ensuring adequate care for Medicaid beneficiaries will come from increased involvement of state medical associations and increased charity care by individual physicians, said a report adopted by the House.

The report described the AMA's exploration of the feasibility of obtaining special tax credits or deductions for physicians providing services to the poor at no charge and at less than their "usual and customary" charge. Both approaches have a number of legal and accounting problems, the report noted.

Expressing its "strong concern" for the need to increase participation by physicians in the Medicaid program, the report said the AMA's Council on Medical Service currently was studying a number of approaches to improve accessibility to care for Medicaid recipients.

Medicare Reimbursement

The House took several steps designed to improve reimbursement under Medicare.

In one such action, the AMA said it would take appropriate measures to promote a change in Medicare regulations and policy to limit postpayment utilization review, and requests to recoup payments to claims that were no more than two years old, except in cases of suspected fraud. Current regulations permit the federal government to reopen claims determinations up to four years after a claim was approved initially.

The delegates also approved a report recommending methods by which physicians may be able to improve Medicare reimbursement for chemotherapy. The report recommended that physicians billing for the administration of chemotherapy to Medicare patients ensure that the services billed for are adequately and fully described on the appropriate claim form.

The report also recommended that physicians bill for chemotherapy services to Medicare patients at their current reasonable charge level for such services to all patients. In addition, the report recommended that carriers recognize and encourage administration of chemotherapy in physicians' offices as being more cost effective than administration in many other settings.

Medical Education

Delegates approved a far-reaching policy statement on medical education that was designed to counter a trend toward fragmentation of the field of medicine.

The basic premise underlying Future Directions for Medical Education was that physicians should be educated broadly if medicine is to continue to be a highly respected profession.

The most controversial of the 36 recommendations contained in the report of the Council on Medical Education (CME) was a proposal to revive the general internship as the transitional year between the last year of medical school and the first year of residency.

The document, which was prepared by six task forces over two years, recommended that the first year of postdoctoral medical education for all graduates should consist of a broad year of general clinical training.

For physicians entering residencies in internal medicine, pediatrics, and general surgery, postdoctoral medical education should include at least four months of training in a specialty or specialties other than the one in which the resident has been appointed.

Family practice already provides a broad education in medicine because it includes training in several fields, said the report, which was adopted by a wide margin.

Supply and Distribution of Physicians

The supply and distribution of physicians is not immune to the play of free market forces, according to a Board of Trustees report that revealed that a large increase in the number of physicians had produced lower incomes.

The study supported the policy of the American Medical Association that market forces should be allowed to determine the number of physicians who are produced in the United States, their distribution in the specialties, the number of students who are admitted to medical schools, and the number of allied health personnel who are trained.

The report, which was filed by the House of Delegates, found that the supply of physicians had outstripped the demand for medical services.

The number of physicians increased from 152 per 100,000 civilian population in 1971 to 194 per 100,000 by the end of the decade. During the same period, their real incomes fell from an average of $41,800 to $38,000.

Complaints Regarding Residency Programs

A proposal introduced by the American Medical Association Resident Physicians Section guaranteeing anonymity to any resident who initiates an inquiry into the conduct of his or her training program was deferred by the AMA House of Delegates to the Board of Trustees for further study.

According to the residents, a resident who files a complaint may be subject to reprisal by the director of that program.

Currently, the review system provides a copy of any resident complaint to the residency training program director, along with a request for a reply. In too many cases, the residents said, there is no hope of maintaining anonymity once the program director sees the original complaint. As a result, the fear of reprisal may be so great that a resident won't file a complaint, even though the charges may be accurate and justified.

Reports of Treasurer, Executive Committee, The Journal

Treasurer

ACTION: Referred for Audit.

An unaudited report of receipts and expenditures and the state of funds on hand at Sept. 30, 1982, was included in the House of Delegates packet.

Douglas H. White, M.D.
Treasurer

Executive Committee

ACTION: Filed.

The Executive Committee as of July 1, 1982, had met 12 times to consider a multitude of items of business. Some of these issues are as follows:

1. Recommended to the Board of Trustees that the ISMA proceed with its own actuarial study of the Patients Compensation Fund because of the anticipated recommendation to raise the surcharge as high as 40%.

2. Continued to explore the possibility of purchase of the property immediately north of the ISMA headquarters and authorized an independent appraisal of the property.

3. Requested that legal counsel propose legislative changes in the objectionable portions of H.B. 2042 dealing with chiropractic scope of practice.

4. Reviewed all 1981 resolutions requiring fiscal notes.

5. Authorized the purchase of a CPT word processor to facilitate staff services to the membership.

6. Reviewed and approved the 1982-1983 budget.

7. Met with the Medical Licensing Board regarding important issues confronting the profession, i.e., educational standards of FLEX candidates, preceptor training for foreign trained physicians, status of physician assistants and personnel needs of the Board. The MLB was also encouraged to share legislative proposals with ISMA as soon as they are developed.

8. Directed the staff to survey state societies of comparable size to determine the percentage of their budgets devoted to various program categories such as legislation, public relations, membership services and others.

9. Reviewed and reaffirmed the current investment policy and the composition of the Investment Committee.

10. Approved the concept of three regional legislative conferences in November of each year.

11. Attended the AMA National Leadership Conference held annually for state society leaders in February.

12. Established a policy of reimbursement for student representation at the AMA annual and interim meetings.

13. Made the annual Washington visit with Indiana congressmen in April.

14. Endorsed a recommendation that the AMA delegation introduce a resolution in the AMA House calling for the re-establishment of the AMA's Commission on Health Care Costs.

15. Agreed to appropriate $50,000 for investment capital in the formation of an Indiana Malpractice Insurance Company.

16. Authorized the deposit of $65,000 to reactivate the Student Loan Fund following detailed discussions with I.U. Associate Dean James E. Carter, M.D.

17. Authorized the transmission of a letter to the Indiana Insurance Commissioner challenging the legality of the non-assignability provision of the Blue Shield VIP Program.

Currently, the committee is considering the possibility of changing the staff retirement plan from a "Defined Benefit Plan" to a "Defined Contribution Plan."

I wish to thank both the members of the committee and the ISMA staff for their faithful, diligent and careful efforts in matters handled by the Executive Committee.

Herbert C. Khalouf, M.D.
Chairman

The Journal

ACTION: Filed.

The first eight months of this fiscal year showed Journal income approximately $15,000 above the budget and Journal expense almost $2,000 below budget. The only item which will alter this proportion is the September issue, which is always bigger than average.

Subscription income has mostly been received for the entire year. Ordinary outside subscriptions are at 95.6% of the budget. Exempt members subscriptions are well over expectations at 153% of budget.

Among the income items that accumulate each month are the advertising accounts. On a year-to-date basis the national advertising sales for eight months are up by 166% over the budget. Local ad sales are up by 136% over budget. Other monthly income accounts such as reprint sales and publication subsidies are up by 200% and 340%, respectively.

Income items such as I.U. CME articles and Physicians Directory are below the levels forecast by the budget.

The fiscal year will probably end with an excess of revenue over expense of approximately $12,000.

The contribution of scientific articles, the production of the excellent I.U. CME articles and the supply of socio-economic articles has been sufficient in numbers and quality.

The policy of limiting scientific articles to two journal pages except when subsidized has served to produce many concise discussions. In instances in which adequate coverage demands more space, subsidies at the rate of $100 per page for the excess pages are being supplied by authors, by special funds, or by the Indiana Medical Foundation.

The Foundation continues to grow financially and, each year, awards an increasing, though modest, amount of financial aid in the form of article subsidies. ISMA members are urged to contribute generously to the Foundation. Increases in the investment account of the Foundation will provide more and more support for THE JOURNAL and for other continuing medical education projects in the future.

The 75th year of publication for THE JOURNAL was celebrated by the January 1982 issue. A brief history of the Association and THE JOURNAL was included with a listing of the Council members who established THE JOURNAL in 1907. All the editors, all the members of the Editorial Board, and the business managers were listed for the record.

Next year, 1983, will launch THE JOURNAL into the fourth quarter of its first century replete with friends and supporters and faith in the future.

Frank B. Ramsey, M.D.
Editor

Commission members were listed in the September 1982 issue of THE JOURNAL, *page 655.*

Medical Services

ACTION: Filed.

The business of the ISMA Commission on Medical Services involves acting on actions mandated by the House of Delegates as well as interim issues referred by the ISMA Board of Trustees.

During fiscal year 1981-1982, the commission studied and recommended specific actions to the Board of Trustees regarding Resolutions 81-19, 81-32 (Peer Review), 81-33 (HSAs), 81-24 (Laboratory Tests), 81-27 (Home Deliveries), and Resolution 81-30 (Emergency Care Centers). All issues dealing with House of Delegate actions have been thoroughly investigated and reported back to the Board of Trustees with appropriate recommendations.

In other actions, the commission has investigated the activities of a mail order medical laboratory and has had ongoing conversations with Indiana Blue Cross/Blue Shield regarding a form letter sent to patients when there is disagreement over fees.

John D. MacDougall, M.D.
Chairman

Subcommission on Insurance

ACTION: Filed.

Some major changes in the ISMA group-sponsored insurance programs took place in 1981-82, and your Subcommission on Insurance feels the members of ISMA will reap the benefits of these changes now, and in the future.

The members of the subcommission met several times since the last annual report to review, and take action on several different insurance proposals which included the members' health insurance program, Directors and Officers (D&O) insurance for county medical societies, and a professional liability insurance proposal.

The deliberations of the subcommission and the actions of the Board of Trustees have resulted in the ISMA switching the members' health insurance from BC/BS to the Lincoln Life Insurance Company; adding a dental program; offering D&O insurance to county medical societies, per Resolution 81-15; and capitalizing the Physicians Insurance Company of Indiana (PICI), which will offer medical liability insurance to ISMA members at rates lower than what is available through the existing market.

In addition, ISMA is now sponsoring a group Term Life Insurance program, Hospital Daily Payment Plan, Income Protection Plan, Office Overhead Expense plan, Yearly Renewable Term-7, Yearly Renewable Term-100, Retired Lives Reserve, Universal Life, Single Premium Deferred Annuity Contract, and a group Individual Retirement Account through the Indiana Physicians Life Insurance Company. All of these insurance products are very competitive with what is available through the existing insurance market.

Your subcommission will continue to monitor all the ISMA group-sponsored insurance programs, as well as any new proposals, and will not hesitate to make a recommendation to the Board of Trustees to switch from one carrier to another if the information presented to the subcommission warrants such a recommendation.

I want to thank the members of the subcommission for all the time they devoted to reviewing these programs and proposals to insure that the members of ISMA have the best insurance products available, and at a reasonable cost.

John D. MacDougall, M.D.
Chairman

Subcommission on Insurance:
John D. MacDougall, M.D.
Garry L. Bolinger, M.D.
Dwight W. Schuster, M.D.
John R. Thomas, M.D.
William D. Cutshall, M.D.

Medical Education

ACTION: Filed.

The Commission on Continuing Medical Education and the Subcommission on Accreditation reviewed the new Essentials as proposed by the Accreditation Council for Continuing Medical Education (ACCME) and made appropriate recommendations on same. The AMA's Advisory Council on Continuing Medical Education is now in the process of preparing Guidelines to accompany the new Essentials. These Guidelines will be available for review in October 1982.

The Commission on Continuing Medical Education and Subcommission on Accreditation will present its first Site Surveyor's Workshop this year. This all-day seminar will be conducted on Saturday, Nov. 13, 1982, in the ISMA headquarters. Richard Egan, M.D., secretary, AMA Council on Medical Education, will be the featured speaker. His presentation will concentrate on "Recent Events in CME." The object of the workshop will be to review the purpose and process of accreditation and to give the site surveyors the necessary confidence and expertise to perform a satisfactory survey.

Following are the accreditation and reaccreditation actions of the Commission on Continuing Medical Education/Subcommission on Accreditation thus far this year:

Howard County Hospital, Kokomo
St. Joseph Memorial Hospital of Kokomo
LaPorte Hospital
Memorial Hospital of Floyd County, New Albany
Reid Memorial Hospital, Richmond
Aesculapian Society of Wabash Valley
Indiana Association of Pathologists
Indiana Bone and Joint Club
Indiana Psychiatric Society
Indiana Society of Anesthesiologists
Indiana State Board of Health
Indianapolis Anesthesiologists
Third Medical District

Steven C. Beering, M.D.
Chairman

Legislation

ACTION: Filed.

During the October 1981 meeting of the ISMA House of Delegates, Resolution 81-18 passed. The resolution contained two resolves: one, that ISMA include the members of the House of Delegates in its mailing list of legislative updates, and the county medical societies that request the information; and two, that ISMA study the feasibility of establishing an information system which can be turned on rapidly and effectively so that members can voice their opinion to their elected representatives at the state and federal level.

In compliance with this resolution, four regional legislative conferences were held in the fall of 1981 at Columbus, Vincennes, Kokomo and Ply-

mouth. The program consisted of discussion of ISMA's legislative concerns for 1982 consisting of motorcycle protection headgear, certificate of need, Malpractice Study Committee, amendment of H.B. 2042 regarding chiropractic, freedom of choice of provider under Medicaid, single state agency for health planning and generic substitution. These meetings allowed for a free exchange of ideas and with a social hour following to meet the doctors and representatives attending.

On May 12, 1982, the ISMA sponsored the first annual state health legislative workshop—"Statehouse Strategy, 1983"—at the Indianapolis Marriott Inn. Topics covered and participants included Political Action Committee—Dr. Richard Reedy and Howard Grindstaff; Medical Malpractice Legislation—Richard King, legal counsel, and Don Foy, executive director of ISMA; Recent Enactments and Future Legislative Proposals—Dr. Paul Wenzler and Richard King; Contact and Lobbying—Dr. Ed Langston, president of the Indiana Academy of Family Practice, and a movie entitled "The Best Little Statehouse in Texas." Guest speaker was Ned Lamkin, M.D., who gave an excellent discussion of current legislative problems. Those of you who could not attend this meeting missed an excellent session. The program will be repeated and will be available to county medical societies on request.

January 6 to January 10, 1982, Dr. Martin O'Neill, president of ISMA, Rick King and myself attended the Eighth Annual AMA Legislative Conference. The program included information on problems of other states and their solutions to malpractice, Medicaid, medical assistants and hospital programs. We were able to exchange ideas and solutions which Indiana has found helpful.

The 102nd Indiana General Assembly, in short session, introduced 900 bills; of these 235 successfully passed both houses to become law, upon signature of Governor Robert Orr. Approximately 100 bills were health related and commanded the attention and efforts of the ISMA. The Legislative Commission studied the bills, determined their impact on organized medicine and recommended support for those bills consistent with the House of Delegates' policies.

May 24 to 26, 1982, the trustees of the ISMA went to Washington, D.C., for their annual visitation. We were able to talk with the senators and representatives from Indiana and expressed our views on a number of legislative items. Our delegation was well received and "grass roots" medical opinions were expressed on pending legislation. I highly recommend that we continue this on a yearly basis.

All things considered, this has been a productive year, even though the Indiana General Assembly was in short session. I wish to thank you for allowing me to participate in the ongoing problems involving organized medicine in Indiana.

Paul Wenzler, M.D.
Chairman

Public Relations

ACTION: Filed.

The Commission on Public Relations, with several new members, met in January, April and August. ISMA's involvement with ongoing programs in external and internal communications has been successfully continued while some exciting new programs have also been initiated.

Ongoing internal programs include the monthly newsletter, *ISMA Reports,* and a report of board actions from the chairman following each meeting of the ISMA Board of Trustees now titled *Siebenmorgen's Notes.* For the second year a Physician Spokesperson Workshop was presented at ISMA's annual meeting. The workshop allows physicians to "meet the press" and gain information on handling interviews, initiating contact with the media, and communicating more effectively.

External programs consist of the development of a variety of communications tools. The print series "Your Hoosier Doctor Says" is used by more newspapers than ever as approximately 50 of 190 daily and weekly Indiana newspapers utilize the series' health education material. Efforts to further increase use of the series have included an opinion and usage survey of newspaper editors and an appeal to county society presidents, secretaries and executive directors, urging assistance in the promotion of the series on a local basis by personal contact.

Auxiliary members have been involved with the development of local production of the radio version of "Your Hoosier Doctor Says." Most success with this public service health education series was achieved in Vanderburgh County where the Voluntary Effort Committee has placed the series with local radio stations.

Although the initial flurry of activity promoting the VE to the public in 1980-81 has slowed considerably, the VE is still alive and functioning. Television public service announcements produced in 1981 still appear on television stations throughout the state. Local committees, such as the committee in Vanderburgh County, continue to promote health care cost containment awareness and activities. Literature, news releases and other material prepared by the VE continues to circulate while ISMA staff regularly attend meetings of the state task force and report activities to the commission. The commission suggested that the Voluntary Effort consider adoption of the discontinued Tel-Med program. The suggestion was enthusiastically received by Dr. Blankenbaker of the State Board of Health (a member of the Indiana VE), not only on behalf of the VE, but on behalf of SBOH. Funding for the program, however, remains a major obstacle.

Vanderburgh County's strong public relations program serves as an example of what can be accomplished on the local level. Allen County and Owen-Monroe County are also encouraging models that help prove a point the PR Commission would like to stress to all ISMA members: Public relations programs and activities can only be effectively developed at the local level. Your county society is the group most aware of community needs and opportunities. On the local level you can make personal contact with newspaper editors, radio and television news directors and public affairs directors. You know your community's leaders and many of its people. The ISMA Commission on

Public Relations may serve as a clearinghouse for ideas and, with staff assistance, help you with any public relations projects. But only you can pick up the ball and run with it.

ISMA's periodic publication stating policy and opinions, *Heartbeat,* continues to be well received with articles on such subjects as business/medicine coalitions, HMOs, and the GMENAC report, as well as serving as a tool for informing legislators, the media, and leaders in the business community of the actions of ISMA's House of Delegates. A recent issue of *Heartbeat* was used to disseminate information on ISMA legislation concerning HCG, home births and natural death certificates.

The "Smoke Inhalation" pamphlet produced by ISMA has been offered at nominal cost to fire departments and schools throughout the state. It has received praise from both these groups and more than 20,000 copies have been distributed.

In response to a recommendation by the Future Planning Committee, news releases were prepared and distributed to local media identifying physicians appointed to ISMA commissions and committees and giving background on both the physician and the functions of the ISMA groups.

This year the Commission on Public Relations, with the approval of the ISMA Board of Trustees, re-instituted a policy of donating funds to the National Journalism Center. The center is designed to "train young people in the skills of professional media work within a context of traditional values: support for our constitutional system, an understanding of our free enterprise economy, and defense of our national sovereignty." ISMA will make an annual contribution of $100 to this Washington, D.C. based institution.

An exciting new program under development this year, which will hopefully begin production in the coming year, involves a television series that may appear statewide. The Fort Wayne/Allen County Medical Society, in cooperation with Custom Video Corporation, has produced a weekly television series entitled "Heartbeat" featuring current and important medical topics. The program has been called a "method for the medical community to provide important health and medical information and combat the many myths and misconceptions of the public." ISMA has been asked to cooperate in the production of a similar series for statewide distribution either through the Public Broadcasting System (PBS) or local commercial television markets. Funding would come from outside the Association and efforts are now being made to pursue the implementation of this project. The commission regards the airing of the proposed programs, the subject matter of which ISMA would control, as an excellent means of providing the public with informative material on health, medical procedures, and so on, while presenting a realistic, positive image of physicians and the medical profession.

Following the latest ruling of the Supreme Court concerning the long-standing dispute between the AMA and the Federal Trade Commission (FTC), the AMA requested state medical association assistance in informing the medical and lay communities about the issues. An AMA publication, "FTC AMA Q&A," was therefore distributed to ISMA physicians through *ISMA Reports.*

The commission would like to thank the ISMA membership and staff for their efforts in Dr. Lowell Steen's campaign for the office of AMA president-elect. Although the results of the election did not turn out as we had hoped, we greatly appreciate the time and work contributed by everyone involved.

Finally, as has been the case for the past 17 years, the commission selected winners in the Journalism Awards competition for excellence in health and medical reporting, and chose to honor an outstanding physician with its Physician Community Service Award.

I wish to thank all the members of the Commission on Public Reltions for their efforts and assistance in making the last year a very successful one for our public relations program.

John V. Osborne, M.D.
Chairman

Physician Impairment

ACTION: Filed.

The Commission on Physician Impairment met regularly on a quarterly basis. The main objective of the commission was to identify physicians with a potential impairment, to confront the physician as indicated, and to help the physician enter treatment if indicated. Following treatment, the commission then helps the physician re-enter the practice of medicine; it is appropriate then to monitor the physician if necessary. Emphasis is placed on amity.

During the past year 93 contacts were evaluated. The commission members participated in seven statewide educational programs, some of which resulted in the establishment of local committees for physician impairment. Two members of the commission will be attending the annual AMA Convention on Physician Impairment early this fall.

Richard Wm. Campbell, M.D.
Chairman

Constitution and Bylaws

ACTION:

1) Approved the decimalized version of the ISMA Constitution and Bylaws, which incorporates amendments from the 1981 House of Delegates and the 1982 Supplemental Report of the Commission on Constitution and Bylaws.

2) The Commission was commended for its effort by the House.

3) Report filed.

REPORT:

The draft copy of the proposed decimalized version of the ISMA Constitution and Bylaws, as printed in the August 1982 issue of THE JOURNAL recommended minor revisions in italicized type. The remaining text is unchanged from the current Bylaws. However, it is somewhat reorganized for better clarity making multiple references at an absolute minimum. Further, the decimalized Table of Contents itself is a convenient reference guide.

We hope that you read the document carefully, as we have labored over it for two years now. We do feel that, at long last, the proposed version fulfills the Bylaws requirement that mandates the Commission on Constitution and By-

laws to maintain the Bylaws consistent with current trends and needs of the profession. This proposed version will be considered at the first session of the House and if voted favorably will become effective immediately.

Your Commission is proposing additional resolutions recommending amendments of a substantive nature which likely will stimulate debate. These are not included in the decimalized version.

SUPPLEMENTAL REPORT:

The following editorial corrections are offered as supplemental items to the updated decimalized version of the Constitution and Bylaws.

For clarification, proposed changes are indicated as follows: ~~This style type~~ (– – – –) indicates deletions; *Italics* indicates additions.

1.0301 . . . . . With the exception of ~~Medical Student Members~~ and

5.0601 . . . . . , and to ex-officio the Speaker and Vice Speaker, *without power to vote,* shall constitute . . . . .

7.03 . . . . . six hundred (600) ~~active~~ *regular* members . . . . .

11.02 . . . . . only portals to this Association, (this comma is italicized) . . .

12.05 . . . . . each six hundred (600) ~~active~~ *regular* member of major . . . . .

Lloyd L. Hill, M.D.
Chairman

Reports of Committees

Committee members were listed in the September 1982 issue of THE JOURNAL, *page 655.*

Medical Education Fund

ACTION: Filed.

The Indiana Medical Education Fund Committee met in February 1982 to review the investment portfolio performance for the past year and to consider the investment strategy for the fund. Mr. Fran Brezette and Mr. Larry Cole, representing the trustee, the American Fletcher National Bank, requested that the committee consider converting part of the portfolio, which consists of bonds, in order to take advantage of the high interest rates currently being offered. In addition, the earnings and contributions received by the fund will continue to be invested in the short term investment fund.

Dr. Steven C. Beering, Dean of the Indiana University School of Medicine, requested a disbursement of $100,000 in May 1982. This request has been granted and the funds were disbursed in July.

The AMA-ERF program made the largest single grant to the Indiana University School of Medicine this year. In March 1982, the fund received $59,372.97. Prior contributions have been, 1981, $55,556.83; 1980, $48,476.18; 1979, $41,427.60.

The present status of the fund is as follows:

Fund Balance 7-1-82	$462,048.56
Received from AMA-ERF	59,372.97
Income	57,770.39
Trustee Fees	(1,865.31)
Realized bond loss due to conversion from cost to market value	(54,185.40)
Fund Balance 6-30-82	$523,141.21

John W. Beeler, M.D.
Chairman

Medico-Legal Review

ACTION: Filed.

The Medico-Legal Review Committee had a minimum of internal inquiries submitted to it, which were handled by the chairman with no inquiry requiring committee action.

During the past year, your chairman has been working with the Medico-Legal Communities of the County Medical Society and the Indianapolis Bar Association in an effort to update the inter professional code that may be presented to both state organizations. We are hopeful that we will have an inter-professional code satisfactory to both the professions in the immediate future.

We have had discussions concerning some of the problems occurring with the Medical Review Panels, and suggestions for improvement are being sought. Our committee will continue to assist the Association in any way possible.

John W. Beeler, M.D.
Chairman

Grievance

ACTION: Filed.

The Grievance Committee met during 1981-82 on three occasions and reviewed 28 cases, of which 11 have been closed and 17 are still pending.

As usual, the lack of good patient communication was the source of most of the complaints that were received.

The Grievance Committee wishes to thank all the members for their attendance and valuable assistance during the past year.

G. Beach Gattman, M.D.
Chairman

Physicians Insurance Company of Indiana (PICI)

ACTION: Filed.

During the first six months of 1982, the initial organizational steps and licensing of Physicians Insurance Company of Indiana were completed in order to market Medical Professional Liability insurance to members of the Indiana State Medical Association.

On May 20, 1982, the Commissioner of Insurance for Indiana authorized Physicians Insurance Company of Indiana to complete its organization. On May 27, 1982, the company held its first organizational board meeting and at the time subscription agreements were taken and the company was capitalized the following day with $3 million. The capitalization of the company was accomplished by four entities, those being, the Indiana State Medical Association, Physicians Insurance Company of Ohio, Physicians Insurance Company of Michigan, and Kentucky Medical Insurance Company. After completing its initial examination of the books, the Indiana Insurance Department issued a Certificate of Authority on July 1, 1982, to transact insurance business in Indiana.

During July two notices were sent to members of the Indiana State Medical Association advising them of the company and the rates and types of coverage being offered. The rates established are competitive with other major writers of professional liability in the state. Additional mailings have been scheduled throughout the remainder of 1982.

Inquiries from physicians requesting binders, policies, or just quotations, are being received on a routine basis. Although it is too early to determine what impact this company will have on the market in Indiana, it is anticipated that, based on the rate of return currently being received, it will have a definite impact and we will write a substantial portion of ISMA members in the coming years.

The physician-dominated, Indiana-controlled Board of Directors of Physicians Insurance Company of Indiana has appointed Indiana physicians to sit on the Claims Committee and Underwriting Committee to provide the best expert advice available in risk selection and claims investigation. In addition, the staff of the company has obligated itself to members of the Indiana State Medical Association and shareholders of the company to provide the best service possible to physician members in Indiana.

Concerning the shareholders, Physicians Insurance Company of Ohio and Physicians Insurance Company of Michigan have agreed to offer for sale, some time during calendar year 1983, their Class A shareholdings to ISMA members and their corporations. This will allow the physicians and their corporations in Indiana to become the primary shareholders of the company. Physicians Insurance Company of Ohio and Physicians Insurance Company of Michigan would then revert to minority shareholders of the company.

Martin J. O'Neill, M.D.
President

I-MEDIC

ACTION: Filed.

I-MEDIC was originated in October 1973 by the ISMA House of Delegates. The company was organized as a for-profit corporation in May 1978 and is totally owned by ISMA.

Since 1978, I-MEDIC has functioned as a computer service bureau, handling the data processing needs of five of the six Indiana PSROs. Our primary mission has been to maintain the confidentiality of data collected on Indiana patients and physicians. We have thus far been successful in achieving that goal.

With the demise approximately one year ago of most of the Indiana PSROs, I-MEDIC stopped providing data processing services to those organizations. During the past year, I-MEDIC has had limited activity doing the data processing for the ISMA members' health insurance program. During the past 12 months, I-MEDIC has reduced its debt to ISMA by $51,144.

Although currently maintaining a low level of activity, I-MEDIC is in position to do other medically related data processing, as the need arises.

Eli Goodman, M.D.
President, I-MEDIC

Indiana Physicians Life Insurance Company

ACTION: Filed.

Indiana Physicians Life Insurance Company has in recent months taken major steps toward reaching its primary goal—to become Indiana physicians' primary source of life insurance and financial planning services.

Indiana Physicians Life has developed a highly specialized package of services specifically designed to meet the needs of Indiana doctors and their professional corporations. The package, appropriately called ISMA's Financial Planning Services Program, is being offered exclusively through Earl W. Williams and James D. Townsend of ERISA Planning Services, Inc.

The ISMA's Financial Planning Services Program includes a comprehensive portfolio of products and services including universal life, term life and graded premium whole life plans, disability income coverages, annuities, qualified pension plans, major medical and hospitalization protection, and several ISMA-sponsored group plans.

Indiana Physicians Life appointed Williams and Townsend as general agents. Together with a statewide network of associates, they will use their experience and expertise to assure ISMA members' financial security.

Last month, a marketing campaign to introduce Indiana doctors to the program got underway. The marketing campaign includes advertisements featuring Williams and Townsend placed in all state medical society publications, a mailing to the ISMA's membership about the program and a series of brochures which individually feature each product and services. The campaign will continue throughout 1982.

The ISMA's Financial Planning Services Program is endorsed and sponsored by the Indiana State Medical Association.

SUPPLEMENTAL REPORT:

In 1979, this House of Delegates adopted a resolution to establish a life insurance company. This was done by establishing the Indiana Physicians Investment Company, a holding company, and a stock sale began in order to capitalize a life insurance company,

Indiana Physicians Life Insurance Company. The initial stock offering was unsuccessful in selling enough stock to allow for the capitalization of a life insurance company, but was withdrawn because of an error in the prospectus.

At that time, we received the assistance of the Physicians Insurance Company of Ohio (PICO). PICO agreed to invest $2.1 million in Class A & C shares of the Indiana Physicians Investment Company, which provided enough capital to immediately form Indiana Physicians Life Insurance Company. This agreement was with the understanding that PICO's shares would be purchased by ISMA members and PICO could thereby get its investment back. It was not PICO's intention to remain a major stock-holder of Indiana Physicians Investment Company.

A year-long offering to sell PICO's shares commenced on September 28, 1981 and has now ended. Unfortunately, although many of PICO's shares have been sold during the past year, not enough stock has been sold to buy out PICO.

Currently, Indiana physicians own 20,062 shares of the IPIC stock. The ISMA owns 25,000 shares and PICO owns 104,938. Thus, PICO, not the ISMA, not Indiana physicians, not even the ISMA plus Indiana physicians, but PICO remains the majority owner of Indiana Physicians Investment Company/Indiana Physicians Life Insurance Company.

When this project started, there were several goals: (1) to provide good economical life insurance service to members of ISMA (2) to provide good investment opportunities to ISMA members (3) to have a company owned by ISMA and its members, and (4) to provide the ability to later develop a liability company if a need developed.

Our published report indicates we do indeed have a vigorous life insurance company operating but it is not controlled by Indiana physicians and we have had to develop a liability company through another mechanism. The other two goals still remain and may even now be more important. How we move forward is of concern to all who have helped us to this point.

PICO never wished to be the majority share-holder of Indiana Physicians Investment Company. PICO already owns a successful life insurance company—its subsidiary, PICO Life Insurance Company.

However, in an effort to resolve this situation, the PICO family of companies is considering a fascinating proposal, and is offering this idea to us for consideration.

PICO has before it a proposal from PICO Life's Board of Directors to combine PICO Life with Indiana Physicians Life Insurance Company. There are a variety of processes for such a combination, and the alternatives are now being investigated, but either a merger or a consolidation could easily be resolved. Such a new company would allow the Indiana State Medical Association and Indiana physicians an ownership position in a fairly good-sized regional life insurance company. In fact, the PICO Life proposal invisions sales of stock of the new company to other state medical associations throughout this part of the U.S. Strength through large numbers appears to be their goal. This proposal is well worth our consideration.

The Indiana Physicians Investment Company and the Indiana Physicians Life Insurance Company Board of Directors have considered this proposal at length and have unanimously recommended the adoption of this proposal to the PICO Board of Directors. This concept is also being presented to the Indiana State Medical Association Board of Trustees and the Ohio State Medical Association Council for their reflection and opinion.

We are quite pleased and excited about the PICO proposal. I believe this new venture will prove to be very exciting and prosperous. It is our belief that those now involved with IPLIC will have greater security if the proposed changes are made.

Arvine G. Popplewell, M.D.
Chairman of the Board

Reports of Trustees

ACTION: All Trustee Reports Filed.

First District

Approximately 180 physicians, spouses and guests attended the First District Medical Society Annual Meeting held at the Evansville Country Club on June 22, 1982. Following a cocktail hour, generously supplied by Mead Johnson & Company, and dinner, the group heard several reports during the brief business meeting by: Dr. Martin O'Neill, ISMA president; Dr. John Bizal, First District trustee; Dr. Lawrence Allen, speaker of the House; and Dr. Gilbert Wilhelmus, AMA alternate delegate and Blue Shield Board member. Officers were then elected: Steven Elliott, M.D., president; Kent McKinney, M.D., vice president; Donald Elder, M.D., secretary-treasurer; and Wallace Adye, Jr., M.D., alternate trustee. Appreciation was expressed to the VCMS staff for organization of the meeting, which concluded with an excellent presentation by Dr. Otis Bowen.

The 7th Annual Bob Acre Memorial Golf Tournament was held at the Evansville Country Club on June 17. Winners were a father and son team from Vanderburgh County: Weston Heinrich, M.D.—Low Net, and James Heinrich, M.D.—Low Gross.

The First District Medical Society was well represented at the 1981 ISMA Convention with delegates actively involved in the candidacy of Dr. Patrick J.V. Corcoran for AMA delegate, proposing resolutions in behalf of First District, and maintaining a caucus room. The First District, as a result of House approval, grew to eight members with the welcomed addition of Dubois County. Preparations are under way for the 1983 Convention to be held in Evansville at the Executive Inn.

There were two medical organizations undergoing substantial change within the region this past year. The Southwestern Indiana Health Systems Agency is due to be defunded in April 1983. The newly organized Southwest Indiana Emergency Medical Services Regional Coordinating Center is now assisting counties to develop EMS Councils. The Evansville area has had an active EMS Council since 1977.

Membership in the First District decreased 1% to a total of 396 ISMA members as of March 31, 1982. Seventy-six per cent of First District members belong to the AMA.

John A. Bizal, M.D.
Trustee

Second District

It was my pleasure to be elected ISMA trustee during a very exciting and productive year. The amount of material digested by the Board of Trustees and the decisions demanded are enormous. I would like to express my gratitude to my fellow trustees and the ISMA officers for their patient help and assistance during my "freshman year."

First, for the physicians of the Second Medical District, I would like to express a resounding "THANKS" to Dr. Harold Manifold for his faithful representative contributions to the ISMA as my predecessor. We were pleased to have him represent us and hope that his expertise will continue to affect the ISMA in other future capacities. I personally knew that it would be difficult to fill his shoes.

The Second Medical District meeting this year was hosted by Greene County with Dr. Tom Bailey presiding. The meeting was held at the Shriner's Club in Linton, Ind. Attending the meeting were most of the officers of the ISMA and most of the ISMA staff. Their attendance was greatly appreciated. Very informative and interesting lectures were delivered on the office evaluation of the pulmonary patient and cardiac arrhythmia as seen on ECGs. A delicious meal was enjoyed by all followed by a very direct and concise view of the economy by Mr. Frank McKinney, chairman of the Board of American Fletcher National Bank. Dr. Fred Buehl was elected president of the Second Medical District for the coming year and the next annual meeting will be held in Vincennes, Ind., with the host being Knox County.

The past year could very well be called "the insurance year of ISMA." As noted before under direction of the House of Delegates, the Board of Trustees finally put the beginnings of a malpractice insurance company into action. In order to finance a malpractice company, a broad-based life insurance company was created and stock sales have been less than hoped for and shares and policies are still being sold each day. During the past few months a second company dealing with the malpractice insurance itself has taken shape which will be operating in tandem with the life insurance company in the future. This manipulation was necessary because of a closer than anticipated future malpractice crisis and an immediate broad financial base by the Physicians Insurance Company of Ohio, Kentucky and Michigan. Much of the resistance to "our" (ISMA) insurance company has arisen from misconceptions among the constituents.

This year we have witnessed a sharp division between Blue Cross/Blue Shield and the ISMA. The ISMA-supported medical insurance policy was switched to the Lincoln National Life Insurance Company mainly for economic reasons. One company was planning a 8% rise and the other was a 40% increase. Also, ISMA members have been introduced to the V.I.P. program, which has been viewed very negatively in the Second Medical District. I hope to keep my constituents informed about the way this controversial and possibly unfair program will be promulgated by the Blues.

Leadership meetings between the county society officers, ISMA officers and the district legislators were very well received during the past year. This was very informative to all who attended. We hope to expand this to include more physicians and spouses in each district in the future.

The Health System Agencies and Certificate of Need legislation are still in limbo and awaiting judgments from our state and national level. In any future configuration of this system it appears that the "grass root level" of input into the allocation of health care will be the key factor. I urge everyone in my district to participate and provide this "grass root" input.

This past year has been very educational to me and I hope that I can continue to keep my Second District members appraised of the constant changing face of our state organization. I plan to attend more county society meetings and discuss the issues presented, explain the decisions made and seek opinions to correctly represent them. Also, I hope to get more con-

stituents to participate in the ISMA functions, for it is only through more physician members that the strength of our society will continue to develop and build.

Ralph W. Stewart, M.D.
Trustee

Third District

The Third District Medical Society met in April 1982 at Spring Mill Park in Mitchell in conjunction with the Indiana Academy of Family Physicians. Attendance was adequate for the weekend's festivities with good scientific meetings, updates from ISMA officers, and reports from staff. Election of officers was held and the following physicians were elected: President—Eli Goodman, M.D.; Secretary-Treasurer—Peter H. Livingston, M.D.; and gratefully R. G. (Dick) Huber, M.D., will serve as your trustee for another term. Clark County will host the 1983 district meeting.

The following topics were covered in my report: Professional Liability, IPIC and IPLIC, local views of free-standing emergi-centers, the state health plan, 1982's Legislative seminar, medical student loans, the changeover to Lincoln National as of April 1, ISMA's word processor purchase, and Dubois County's move from Third to First District.

Future concerns about health care cost control and voluntary health planning introduced discussions about local business/medicine coalitions. Legislative updates included PSRO/HSA limitations, patient record access, abortion for minors, health planning, and the increase for Indiana's malpractice surcharge.

Finally, I respectfully submitted reminders to review all ISMA reports, support IMPAC, and to attend the ISMA annual meeting October 15-18, 1982, in Indianapolis at the Holiday Inn-North.

I am committed to meeting you individually at your society meetings or whenever questions may arise. Please feel free to contact me with your concerns, so that I might fulfill the privilege of serving as your trustee.

R. G. (Dick) Huber, M.D.
Trustee

Fourth District

The 1981-82 medical year has been very successful in many respects, including 1) further expansion of membership benefits such as more offering of various types of insurance from our own insurance company and the development of our new malpractice insurance company, 2) increasing the political awareness by our members by having the political dinners with the state legislators in each district, and 3) increasing the coverage of benefits and health insurance to our own membership through our new Lincoln Life plan.

This next year we will again be asked to face several important issues including clarification and challenge in the legality of third-party payers who wish to set the fees of physicians throughout the state. The only way in which these issues can be met is through our continued support and involvement by the membership in various commissions and committees. I would recommend that each member consider participating in some level in the operation of the ISMA. The old adage of "one receives only as much as he contributes" certainly applies to our organization.

The Fourth District Medical Society held its annual meeting in Greensburg in 1982. Mr. Tom Mont, athletic director of DePauw University, was our guest speaker. Doctor William Cooper of Columbus again retired the golf trophy. I would like to take this opportunity to thank Dr. Cooper for his excellent participation and attendance throughout the year as alternate trustee. Our meeting was well attended and my special thanks goes to the ISMA staff as well as all the persons from Greensburg who contributed to the meeting.

I also would like to express my thanks to the local medical societies who were so cordial when I attended their meetings throughout the year.

It should be noted that Doctor Weisenbarger from our Fourth District is becoming well known for his active participation in developing the business-medicine coalition throughout this state. It is only by this method that consumers of health care can be educated to the feelings of organized medicine on various health issues.

Doctor Charles Calhoun of Seymour represented our district on the annual legislative visit to Washington, D.C. and I wish to thank him for his participation.

Mark M. Bevers, M.D.
Trustee

Fifth District

The Fifth District trustee report begins this year with appreciative congratulations to the many Fifth District doctors and auxiliary members who have served so well during the past year as officers and as members of various commissions, committees, IMPAC board, and delegate bodies. Their service and insight have been invaluable and all of us at the ISMA are the better because they were willing to give of themselves on our behalf.

I likewise take this opportunity to thank all the doctors who have gone the extra mile to help my patients during the hours, days, and weeks this year while I have been away from my solo practice on ISMA and AMA duties. Through the helpful support of all these, I was able to confidently assume the chairmanship of the Board of Trustees with all the responsibilities of that leadership position. I trust that the additionally obtained knowledge gained in the related medical, political, and legal arenas has helped me to better represent our ISMA members.

The Fifth District Medical Society met at the Turkey Run Inn June 2, 1982, with Dr. Frank Swaim, president, presiding and Dr. Peggy Swaim giving the treasurer's report. The business session featured informational discussion with ISMA leaders—Drs. O'Neill, president, Haley, immediate past president, Allen, speaker of the House, Popplewell, president of Indiana Physicians Investment Company, Knote, president-elect, Scamahorn, AMA delegate and Don Foy, executive director. Topics covered a wide range of subjects including life insurance, liability insurance, political action, third party carriers, and AMA resolutions. President Pro Tem, Senator R. Garton, was the featured after-dinner speaker.

Fifth District president-elect is Dr. Thomas F. Orman, Terre Haute, while Dr. Peggy Swaim remains secretary-

treasurer and Dr. Benny Ko was wisely re-elected alternate trustee.

The 1983 meeting will be in Vigo County. In the meantime, we will continue to keep the membership informed of the Association's activities and will continue to solicit the Fifth District members' helpful suggestions, thoughts, ideas, and energies toward an even more effective ISMA.

Paul Siebenmorgen, M.D.
Trustee

Sixth District

The only general meeting within the Sixth District during the past year was the Annual Meeting. It was held in New Castle and hosted by the Henry County Medical Society at the Westwood Country Club on May 5, 1982. The meeting was conducted by William Kerrigan, M.D., president. Local arrangements were in the hands of Wylie McGlothlin, M.D. All county medical societies within the Sixth District were represented.

Members from ISMA staff and officers including President Martin O'Neill, M.D., Past President Alvin Haley, M.D., House Speaker Lawrence Allen, M.D., and AMA Delegate Arvine Popplewell, M.D., were present to participate in the business session. Pertinent medical business and political topics were discussed. Officers for the Sixth District Medical Society were elected as follows: President, Robert Warren, M.D. of Richmond, and Vice President Wylie McGlothlin, M.D. of New Castle. Greenfield is to be the site of the 1983 Sixth District meeting and Hancock County Medical Society is to name a secretary-treasurer. I was elected to a second three-year term as trustee, Sixth District Medical Society.

The evening social program was well attended and warmly received.

Individual county medical society representatives have been contacted by me during the year in the interest of state and local problems. I want to take this opportunity to recognize my alternate, Clarence Clarkson, M.D., of Richmond, for his assistance in both state and local matters.

Davis W. Ellis, M.D.
Trustee

Seventh District

The 1982 meeting of the Seventh District Medical Society was held June 29 at Valle Vista Country Club in Greenwood, Ind. For the second year, the schedule provided for a brief meeting of the Indiana Academy of Family Physicians Seventh District.

Our district has been honored over the years to have strong representation from among the ISMA leadership. We appreciated the attendance of Dr. John Knote, president-elect, Dr. Herb Khalouf, Executive Committee chairman, Dr. Shirley Khalouf, vice speaker of the House of Delegates, Dr. Paul Siebenmorgan, chairman of the Board of Trustees, and Dr. Everett Bickers, AMA delegate. Mr. Don Foy, executive director, and Ms. Sara Klein represented the ISMA staff. Dr. Knote presented a brief report on the current status of Blue Shield's Voluntary Incentive Program.

Dr. George Lukemeyer, Seventh District member and delegate to the AMA, reported on the recent House of Delegate meeting and expressed the keen disappointment of the delegation when over a year of aggressive campaigning on behalf of Dr. Lowell Steen's candidacy for president-elect of AMA failed, and Dr. Frank Jirka was chosen to the position by the House of Delegates.

Dr. Lukemeyer went on to report on specific actions of the House of particular interest. He reported that recommendation #20 of the Council on Medical Education, report B, calls for establishing a transitional year of training between medical school and residency which includes a broad-based clinical training experience. He also noted that in 1983 it appears there is a possibility that there will be fewer first-year residency programs available for graduates than there are graduates.

It was also reported that the House has approved a dues increase for 1982; that study is being given to representation in the House of Delegates for hospital medical staffs and on the need for physicians to support legislative action to inhibit the Federal Trade Commission's further intrusion into the practice of medicine.

Lengthy discussion was also given by the House of Delegates to a proposal for the AMA to develop a national health priorities statement. The drafted documents from this effort will be subject to review and approval by AMA Councils, the Board and the House of Delegates.

Dr. Shirley Khalouf was on hand to invite and encourage attendance at the ISMA annual convention in October and reported that at this time only six resolutions have been received for consideration by the House of Delegates.

Dr. Alvin Haley, a Seventh District member and immediate past president of the State Association, reported on the developments with Indiana Physicians Investment Company, Physicians Insurance Company of Indiana and the Indiana Physicians Life Insurance Company. Dr. Haley introduced Mr. Harold Wilson, vice-president of IPLIC, who described several of the insurance products that will soon be available to ISMA members. Dr. Gerry DeWester, IMPAC treasurer and Seventh District member, presented a brief report on IMPAC and the need for even broader participation by the members in this important phase of their professional lives.

We were pleased that Dr. Warren Gray of Morgan County, president-elect of the Seventh District, was on hand to conduct the meeting in the absence of Seventh District president, Dr. Lloyd Terry. Annual elections for the district resulted in the selection of Dr. Hugh Andrews of the Johnson County Medical Society as president-elect for 1982/83 and the re-election of Dr. Malcolm Scamahorn to continue as the district secretary-treasurer.

Dr. John MacDougall was re-elected alternate trustee from the district and Dr. Garry Bolinger was re-elected to a full three-year term. Previously, Dr. Bolinger had served one year as he completed the term vacated by Dr. H. Marshall Trusler, who was elevated to a trustee position in 1981.

Following the ISMA district meeting and the Indiana Academy of Family Physicians district meeting, the members were joined by their spouses for dinner. We were honored to hear a presentation by Lieutenant Governor John Mutz following dinner. The lieutenant governor presented very candid

evaluations of the political scene in Indiana as it relates to state and U.S. Congressional races. He also presented a particularly optimistic report on the economy of the state of Indiana in light of the current conditions our fellow citizens face. We were pleased to learn of the lieutenant governor's strong support for the legislative attempts to control the intrusion of the FTC into the learned professions, which are regulated by the states.

As in the past, we have been pleased to note the very active participation of Seventh District members in the affairs of the State Association and American Medical Association. In addition to the various dignitaries who were noted earlier in this report, the district meeting was attended by Dr. Donald McCallum, an ISMA trustee, Dr. H. Marshall Trusler, ISMA trustee, Drs. Doug White and George Rawls, ISMA treasurer and assistant treasurer, respectively, and Dr. Malcolm Scamahorn, AMA delegate and member of the AMA Council on Medical Services who had just completed service as chairman of AMA House of Delegates Reference Committee B. We have also appreciated the participation of Dr. John MacDougall, ISMA alternate trustee, and Dr. Arvine Popplewell, AMA alternate delegate. The participation of these men and numerous other members of the Seventh District in the affairs of medicine for the state and for the nation is genuinely appreciated.

Donald C. McCallum, M.D.
H. Marshall Trusler, M.D.
Trustees

Eighth District

I appreciate the privilege and opportunity to serve as trustee extended to me by the membership of my district. It has been an interesting year and I request your assistance and ideas on all issues and concerns in the future.

The Eighth District yearly meeting was held June 23, 1982 at the Delaware Country Club. Randolph County hosted the meeting and Dr. Susan Pyle of Union City chaired the meeting. Our current alternate trustee, Dr. William Van Ness II, was elected as alternate trustee for three additional years. Doctor Van Ness was filling a previously vacated term. The Eighth District meeting for 1983 will be hosted by Jay County. Dr. Alfonso Lopez was elected president for the coming year and Dr. Frank Bonsert was elected treasurer. A tentative meeting date of June 15 was selected and the site of the 1983 meeting will be selected at a later date.

The yearly meeting was well attended. The district was pleased to welcome as guests, Martin O'Neill, M.D., ISMA president; John Knote, M.D., president-elect; Paul Siebenmorgen, M.D., chairman of the ISMA Board of Trustees; Herbert Khalouf, M.D., chairman of the ISMA Executive Committee; Shirley Khalouf, M.D., vice speaker of the ISMA House of Delegates; Arvine Popplewell, M.D., past president of ISMA; Malcolm Scamahorn, M.D., ISMA delegate to the AMA; George Lukemeyer, M.D., ISMA delegate to the AMA and candidate for president-elect of ISMA; Everett Bickers, M.D., ISMA delegate to the AMA; Donald Foy, executive director of ISMA; and Howard Grindstaff, ISMA staff. Lawrence Allen, M.D., speaker of the House of Delegates and a member of our district, was also present.

At the meeting, an informative discussion ensued regarding Blue Shield's V.I.P. program, which is being readied for implementation. It was advised that all ISMA members carefully examine the plan prior to deciding on participation, and the legality of the plan was being questioned. Other information discussed at the business meeting consisted of the new medical malpractice insurance program, which will become available for purchase from the state medical association company, and medical education was discussed.

Following the business meeting, dinner and a very entertaining speech by Dr. Phil Thorek was enjoyed by the membership and guests.

I would again request any information of concerns or problems of the membership and would encourage increased participation by physicians of the Eighth District in the ISMA functions and the political process both in state and federally. Thank you very much for being able to serve you for the past year and I will look forward to seeing you in the coming year.

Richard Reedy, M.D.
Trustee

Ninth District

1981-82 has been a year of change in leadership in the Ninth District. Dr. John Knote, who had served with distinction as our district trustee and as board chairman, was elected president-elect of ISMA and I succeeded him as trustee. I consider it an unusual opportunity and a challenge to represent the physicians of the Ninth District on the ISMA board. I hope to voice the viewpoints and will work on behalf of all those I represent.

During my first year, I have found my fellow physicians very willing to serve on commissions and to participate as members of reference committees. I, along with John Knote, president-elect, Peter Petrich, AMA delegate, and Howard Grindstaff, ISMA staff, have met with several county societies during the year. These meetings have helped us to be aware of problems confronting practicing physicians in our area. Hopefully, as problems arise, our willingness to help resolve them will be evident to everyone.

Following an excellent pre-planning session held in March, our district meeting was hosted on June 24 by Fountain-Warren County with President Peter R. Petrich presiding. The meeting was well attended and a number of ISMA officers and staff were guests.

During the afternoon business session, an "open discussion format" was in order with ISMA President O'Neill reporting on V.I.P. and other related ISMA matters. Dr. Popplewell spoke about IPLIC and the new malpractice insurance company. AMA delegates, Drs. Lukemeyer and Scamahorn, gave brief summaries on the recent convention held in Chicago and President-Elect Dr. Knote spoke regarding his activities and topics of future interest to all ISMA members. Two Blue Shield board members, Drs. Fitzpatrick and Petrich, were most helpful in answering and clarifying questions regarding current activities of Blue Cross toward forming an HMO. Dr. Petrich pointed out that

Blue Shield board members do not participate in any policy decisions of Blue Cross. They are indeed separate corporations.

The session proved to be an excellent forum for an exchange of information and ideas between ISMA officers, staff, and Ninth District members. Thereafter, I was elected trustee and Dr. R.A. Lanning of Noblesville was elected to serve as alternate trustee.

The district I.A.F.P. meeting followed. Jackie Schilling, staff members and officers were present to answer questions, and the annual election of delegates and officers ensued.

After an excellent dinner at the Attica Old Towne Inn, members and guests were entertained with an update on "The Shuttle Columbia" by Marshall W. Dietrich, senior aerospace engineer from NASA. His talk was both informative and timely since the "Columbia" started on its final space journey just three days later.

Clinton County was selected as the host for our 1983 district meeting, which will be held in Frankfort next June.

Finally, one of my goals as trustee will be to seek and obtain a broad participation of district members in IMPAC and the new ISMA-sponsored insurance companies now available to members. It is most important that we all support and participate in these areas.

Max N. Hoffman, M.D.
Trustee

Tenth District

Tenth District activities for 1981 focused on the installation of Martin J. O'Neill, M.D. of Valparaiso as ISMA president, and in the campaign of Lowell Steen, M.D. of Hammond in his bid for president-elect of the AMA. Doctors Tom Tyrrell and V.J. Santare served in the AMA delegation.

The annual meeting was held at Wicker Park Social Center with the golf outing held at Briar Ridge Country Club. Dr. Lee Trachtenberg, Tenth District president, augmented our cultural exposure with a dinner trip to the Adler Planetarium, a tour of the Art Institute and dinner at the John Glessner House in Chicago.

Dr. Trachtenberg and I were guests of the Porter County Medical Society at their Christmas party and their annual dinner. Doctors Dan Evans and Frank Sturdevant of Valparaiso attended the Lake County Annual Dinner Meeting on a stormy night.

Governmental Affairs Committee was active throughout the Legislative Session. Local legislators attended several Tenth District functions this year. Several physicians from the Tenth District have been appointed to the Joint Medical Business Task Force on Health Care Costs. Several physicians were changed in membership status to disabled: Doctor Dimailig, Doctor Weiskopf, Dr. Neal and Dr. Loh. We have appreciated their active service in the society. Two members, Dr. Henry W. Eggers and Dr. Leo K. Cooper, are completing 50 years as members of the Lake County Society.

Mr. Jack Swike completed his first full year as our executive director and is learning the ropes as well as showing us a few. Dr. Mary Carroll is continuing her term as Lake County president and Dr. Rustica Delumpa is current president of the Porter County Society.

Our 1982 meeting is to be held at the Lake of the Four Seasons on Sept. 22, 1982.

There are 14 pending applications for membership in the Lake County Medical Society for the meeting in September 1982.

Charles D. Egnatz, M.D.
Trustee

Eleventh District

Over the past year many items were considered by the Board of Trustees. Some of these will have long term impact on us as practicing physicians. One of these was the establishment of Physicians Insurance Company of Indiana. This is a liability insurance company and is now serving the needs of our members for medical liability insurance. The company was funded by ISMA and the Physicians Insurance Companies of Ohio, Michigan and Kentucky. Early next year the stock of this company will be made available to the membership of ISMA. I believe that it is in our own and our patients' best interest that this company be owned and controlled by Indiana physicians. I, therefore, urge each of you to purchase stock in P.I.C.I. when it becomes available to us.

The district meeting was held on Sept. 16, 1982, at the Holiday Inn in Logansport. The meeting was well attended. ISMA officers and staff brought us up to date on many of the issues of concern to all of us.

I was again privileged to serve on the Executive Committee and as the committee chairman.

I want to thank the members of the Eleventh District for the privilege of serving as your ISMA trustee. Some of you have brought matters that concerned you to my attention and I have appreciated this. I encourage each of you to contact me or Dr. Ed Langston, our alternate trustee, with any ideas, problems or suggestions which we or ISMA should be aware.

Herbert C. Khalouf, M.D.
Trustee

Twelfth District

The past year has been an eventful one for your Indiana State Medical Association. Pressures on the independent practice of medicine continue to mount, necessitating a unity among physicians as never before. Prepaid versus fee-for-service medicine, the Blue Cross-Blue Shield VIP program and other issues tend to have a divisive effect as individual physicians opt for different alternatives. For that reason, participation in a strong Association becomes all the more important.

All of us feel the frustrations of trying to deal with various problems as individuals but we only have to look back to 1975 and the medical malpractice act to see what can be accomplished with a united front. As of this writing, the VIP program is being implemented. Efforts of ISMA have succeeded in making participation less of a one-way contract and close attention continues to protect the interests of the nonparticipating physicians who still comprise the vast majority of Indiana doctors.

Although sale of IPIC stock has been somewhat disappointing, we have in operation a physician-owned life insurance company in Indiana which will re-

main sensitive to the needs of ISMA members. New products include universal life, retired life reserves, group IRAs and disability to include the traditional coverage as well as income replacement and office overhead expense.

During the past month the Physicians Insurance Company of Indiana has been incorporated as a casualty insurance company. With this move, we have entered into the malpractice insurance field. Hopefully, it will give us significant leverage in this always controversial area.

The annual Twelfth District Medical Society meeting will be held at the Marriott in Fort Wayne on Sept. 16, 1982. Dr. Edward R. Annis, past president of the AMA, will be featured as speaker.

In closing, I would like to express my gratitude to an exceptional ISMA staff for their efforts throughout the year.

Michael O. Mellinger, M.D.
Trustee

Thirteenth District

The Thirteenth District Medical Society participated in numerous medical activities during the past year. The 1981 annual district meeting was held at South Bend's Knollwood Country Club with President M. Gerald Quinn presiding. The business meeting included the election of the following officers: president, Donald Weninger; president-elect, Donald Minter; and secretary-treasurer, G. Richard Green. It was noted that last year's nominee to the Blue Shield board, Otis Bowen, has assumed that position and thus is in a position to assist us as needed.

This year's annual meeting will be held on Wednesday, Sept. 8, 1982, at Pottawatomi Country Club in Michigan City. The golf course and club facilities are excellent and with the LaPorte County gang as hosts, a good time will be in store. A candlelight dinner, many fine door prizes, and a most-famous after-dinner speaker and past AMA president, Dr. Edward Annis, should make this evening most memorable.

This past year, we physicians have had more changes affecting our profession than ever before. "Reaganomics" dealt a swift blow to PSRO with decreased or zero funding to HSAs as well as a myriad of health projects that have sprung up in the recent past. New cost-containment concepts as well as competition secondary to excess in physicians, changes in health-care delivery including HMO and IPA models, for-profit hospitals and emergi-centers, and the dramatic changes in hospital operation concepts are just a few of the subtle as well as the obvious developments occurring in our district. Caps and further reduction in federal and third party payments should be anticipated as methods to decrease costs. Physicians must be active participants in their local medical society and hospital medical staffs. They must be prepared to thoroughly investigate new policies and adventures and be ready to challenge as well as lead as a group to generate and provide quality medical care for our patients at a reasonable cost.

As you read THE JOURNAL, you will note the supportive activities of the ISMA. The formation of both a life and casualty insurance company will provide many long-term benefits for our members, and I encourage your attention to these programs. The legislative efforts by ISMA and through the political action committee, IMPAC, has been outstanding and demands support by all physicians. I am pleased to again recognize the efforts of so many of our district members in the many community, medical society, and state level activities. We thank you!!! But don't quit now. We need you and any volunteers who would like to get involved but are not sure how.

I would like to express my appreciation to the ISMA staff and especially to the district executive director, Mrs. Rose Vance, for the assistance provided the officers and members this past year. I believe that it is mandatory that our district continue to supply the vehicle for communication. I urge members to use our office (219-288-4401) or the ISMA WATS line (800-382-1721) as a resource for quickly obtaining organization information and assistance.

Donald S. Chamberlain, M.D.
Trustee

Resolutions

Resolution 82-1

Introduced by: LaPorte County Medical Society
Subject: Number of Trustees Per District
Referred to: Reference Committee 2
ACTION: Not adopted.

Whereas, The number of Trustee Districts was drawn up to represent a geographic area, as the Senate; and

Whereas, The physician members of ISMA are numerically represented in the House of Delegates on a per capita basis; now, therefore be it

Resolved, That each Trustee District be represented by one Trustee.

Resolution 82-2

Introduced by: Commission on Constitution and Bylaws
Subject: Medical Defense
Referred to: Reference Committee 2
ACTION: Adopted.

Whereas, Recent decisions of the Internal Revenue Service have indicated that ISMA's tax exempt status could be affected if it were to pay medical defense expenses for individual physicians pursuant to the present medical defense section of our Constitution and Bylaws; and

Whereas, The whole medical defense section of the Bylaws is confusing and unnecessarily lengthy and duplicitious; now, therefore be it

Resolved, That Section 13 of the ISMA Constitution and Bylaws dealing with medical defense be rewritten (as attached) to conform with IRS rulings and to reflect a more realistic approach to this problem.

13.00 MEDICAL DEFENSE—COUNTERSUITS—ADMINISTRATION, AUTHORITY AND PROCEDURES

13.01 Administration: The administration of this entire section shall be entrusted to the ISMA Executive Committee which shall have full authority to develop rules and procedures, and make reports as it may deem appropriate. Any matter not specifically addressed in this section shall be left to the discretion of the Executive Committee.

13.02 Policy and Purpose: It shall be the policy of ISMA that this section of the Bylaws shall only be used as authority to involve ISMA in medical defense and/or countersuit litigation that is of such a nature that the issues presented are of significant concern and impact on the practice of medicine as a whole. In no event shall this section be construed as authority or obligation for ISMA to involve itself in litigation that is primarily a matter of individual concern. This section shall not be construed as authority for ISMA to hire attorneys and pay expenses on behalf of an individual member. However, the Executive Committee is empowered to expend funds for attorneys and other experts who may be required in the pursuit of litigation that may have an impact on the practice of medicine as a whole.

13.03 Eligibility: Request for ISMA Involvement-Procedure
Before a request for ISMA involvement will be considered by the ISMA Executive Committee the following conditions should be met:

(a) The physician making the request should be a member in good standing of ISMA.

(b) A written request for ISMA involvement in medical defense and/or countersuit litigation should be sent to the Executive Committee detailing the facts of the case as well as why the issues involved are of such a nature that they impact on the practice of medicine as a whole.

(c) A written statement of support from the physician's county medical society should accompany the request for ISMA involvement.

THIS MAJOR REWRITE REPLACES CURRENT SECTION 13 AND ALL ITS SUBSECTIONS.

Resolution 82-3

Introduced by: Commission on Constitution and Bylaws
Subject: AMA Delegate Slotting
Referred to: Reference Committee 6
ACTION: Adopted.

Whereas, It has been our general custom in the past to recognize expiring terms of specific delegates and/or alternate delegates; and

Whereas, It has been our custom and procedure in the past to receive nominations and conduct balloting for each specific position; now, therefore be it

Resolved, That the ISMA Constitution and Bylaws specifically provide for the nomination and election of each AMA delegate and/or alternate delegate's expiring term.

Resolution 82-4

Introduced by: Commission on Constitution and Bylaws
Subject: Report of Rules and Order of Business
Referred to: Reference Committee 2
ACTION: Adopted Substitute Resolve

Resolved, That the report of the Committee on Rules and Order of Business shall be considered in the same manner as any other reference committee report. The House may acept or reject any recommendation of the Committee, which shall make recommendations on each resolution considered by the Committee. Discussion on the floor will be limited to one speaker in dissention with the Committee's recommendation. This discussion will be limited to the appropriateness of consideration and not the merits of the resolution itself.

Resolutions

Resolution 82-5

Introduced by: Northern Indiana Psychiatric Society
Subject: Rename Present ISMA Specialty Section
Referred to: Reference Committee 2

ACTION: Referred to ISMA Section on Nervous and Mental Disorders.

Whereas, The ISMA Specialty Section on Nervous and Mental Disorders today would more appropriately be addressed as Psychiatry; now, therefore be it

Resolved, That the ISMA Specialty Section on Nervous and Mental Disorders be renamed the Section on Psychiatry.

Resolution 82-6

Introduced by: ISMA Board of Trustees
Subject: Rescinding Resolution 62-26
Referred to: Reference Committee 4
ACTION: Adopted.

Whereas, Resolution 26 was adopted by the ISMA House of Delegates in 1962 encouraging Blue Shield to market a prepaid indemnity type plan for medical care which plan will have no schedule of dollar allowance but will pay usual charges made by physicians in their areas in which our services are rendered; and

Whereas, The resulting program of "usual and customary and reasonable" (UCR) payments have resulted in many complaints over the years by physicians; and

Whereas, The ISMA no longer has any official relationship with Blue Shield; now, therefore be it

Resolved, That Resolution 62-26 adopted at a special meeting of ISMA House of Delegates be *rescinded;* and be it further

Resolved, That ISMA continue to oppose any third party payment program that delineates physicians by lists or assignment or payments or treats policyholders without uniformity.

Resolution 82-7

Introduced by: Marion County Medical Society
Subject: Endorsement of the American Medical Association Board of Trustees Report DD
Referred to: Reference Committee 6
ACTION: Adopted.

Whereas, Should a thermonuclear holocaust take place in the United States, medical treatment of thermonuclear war victims would overwhelm remaining facilities and medical and health personnel; now, therefore be it

Resolved, That the Indiana State Medical Association endorse the American Medical Association Board of Trustees Report DD, which reads:

"**Resolved,** That the American Medical Association promote the provision of educational offerings to its membership which will inform them regarding the medical consequences of a thermonuclear incident and its appropriate medical management; and be it further

"**Resolved,** That the American Medical Association petition the leaders of this and other countries to find an effective means by which further development, testing and development of nuclear weapons can be halted and worldwide nuclear disarmament effected."

Resolution 82-8

Introduced by: Clay County Medical Society
Subject: Restrictions of Physicians Serving on Boards of Non-Physician Owned Insurance Companies
Referred to: Reference Committee 4
ACTION: Not adopted.

Whereas, Resolution 79-11, adopted by the House, limits the number of major offices a member may hold in the ISMA to one office; and

Whereas, These major offices have been classified as president, president-elect, immediate past president, treasurer, assistant treasurer, speaker of the House, AMA delegate, AMA alternate delegate, trustees and alternate trustees; and

Whereas, It has become obvious that physicians holding offices and serving on Boards of non-physician owned insurance companies develop conflicts of interest with ISMA policies and philosophy; and

Whereas, In reality the physician participation on the Board of Blue Cross and Blue Shield Insurance in the past has been mostly perfunctory without effect in directing the policy of said company; and

Whereas, Physician support of one insurance company constitutes a discrimination toward others; now, therefore be it

Resolved, That physicians serving on Boards of non-physician owned insurance companies be restricted from holding any major office in the ISMA; and be it further

Resolved, That this resolution be incorporated into the Bylaws at this meeting.

Resolution 82-9

Introduced by: Louis F. Bradley, M.D.
Subject: County, ISMA and AMA Membership for County Coroner
Referred to: Reference Committee 3
ACTION: Not adopted.

Resolved, That the coroner should be a member of the county medical society, Indiana State Medical Association and American Medical Association when he or she is eligible for said membership.

Resolution 82-10

Introduced by: Howard County Medical Society
Subject: Open Ulcers—Nursing Home Patients
Referred to: Reference Committee 5
ACTION: Adopted.

Whereas, Nursing homes currently refuse to accept patients with open ulcers with a history of a positive culture; and

Whereas, They base this on regulations by the State Board of Health; and

Whereas, Pathogenic bacteria can be cultured from many noninfected ulcers, and often even normal skin; and

Whereas, Moist areas are even more prone to *Staphylococcus aureus* and gram-negative organisms; and

Whereas, The clinical impression of knowledgeable physicians is a much more reliable indicator than an isolated laboratory report; and

Whereas, Prolonged, unnecessary hospitalization is neither beneficial to the patient nor cost-effective; now, therefore be it

Resolved, That ISMA petition the State Board of Health to review its interpretation of what constitutes a communicable infection for such purposes and how this is best established, and consider allowing transfer of such patients when it is certified by a qualified physician that a primary infection does not exist; and be it further

Resolved, That ISMA recommend to the State Board of Health that a positive culture not be used as the exclusive proof that an infection is present but that a clinical examination be required to confirm that the culture and lesion are causally related.

Resolution 82-11

Introduced by: Howard County Medical Society
Subject: Tuberculin Testing—Nursing Home Patients
Referred to: Reference Committee 5
ACTION: Adopted.

Whereas, Regulation 410 IAC 16.1-3-13 requires patients transferred from a hospital to a nursing home not be infectious; and

Whereas, This has been interpreted by administrative edict to mean that a tuberculin test is necessary before transfer; and

Whereas, Considerable time, inconvenience, and expense are involved in satisfying this regulation although it is not specifically required by the law; and

Whereas, A tuberculin test that is positive does not necessarily indicate active disease but rather may indicate exposure many years earlier; and

Whereas, The fact that many healthy people have a positive tuberculin test tends to cloud the significance of a positive test result; and

Whereas, Negative chest x-rays are available in many such patients and would be better evidence of freedom from infection (unless a recently negative tuberculin result is available that would prove a conversion of the test; now, therefore be it

Resolved, That the Indiana State Medical Association petition the State Board of Health to change the administrative interpretation of the law so that tuberculin testing not be required to transfer such patients.

Resolution 82-12

Introduced by: Howard County Medical Society
Subject: Commission on Health Care Costs
Referred to: Reference Committee 4
ACTION: Adopted and referred to the Board of Trustees.

Whereas, Physicians' fees are a relatively small part of the total health care cost; and

Whereas, Figures in press releases often include (without indicating) charges by dentists, optometrists, chiropodists and even chiropractors; and

Whereas, Much of the total hospital cost is directly or indirectly caused by the expense of complying with government regulation and the cost of administration; and

Whereas, Many policies of third-party payers lead to an increase in the overall expense of health care delivery; and

Whereas, The clerical requirements of third party payers contribute to the cost but not the quality of medical care; and

Whereas, The fees for physicians in Indiana are already low; and

Whereas, Both the public and ISMA want to maintain the highest quality of care; now, therefore be it

Resolved, That ISMA establish a prestigious commission to study how the health care dollar is spent, how much of the professional fee expense goes to non-physicians and where and how much is *spent* needlessly because of government regulation, policies of insurance carrier and additional expense for the first dollar coverage; and be it further

Resolved, That this commission attempt to determine which groups pay a disproportionate amount for such practices; and be it further

Resolved, That the aforementioned commission seek alternate and innovative methods that can be presented to preserve the concept of quality health care at a reasonable cost.

Resolution 82-13

Introduced by: Marion County Medical Society
Subject: Reorganization of Board of Trustees and Trustee Districts
Referred to: Reference Committee 2
ACTION: Not adopted.

Whereas, The existing 13 Districts of the ISMA are based on population and U.S. Congressional Districts which were applicable from the 1870s through 1934 and no longer have validity in either number or geographic confirmation; and

Whereas, Continual efforts have failed to resolve the inability of the several Districts to conduct more than the rudimentary function of election of representatives to the Board of Trustees; and

Whereas, The House of Delegates of the ISMA may only reasonably meet on an annual basis to review the ongoing stewardship of the Board of Trustees and provide general policy guidelines; and

Whereas, The formation of a representative and responsive body to conduct the business of this Association throughout the year is dictated by the dynamics of modern society and the expectations of physicians; and

Whereas, The laws of the state of Indiana recognize the Board of Trustees as the legal body which is responsible for the affairs of this Association; and

Whereas, Responsible and responsive organizations may better reflect the attitudes and interest of its membership by periodic adjustment of its representation method consistent with the realities of the demographics of members—similar to the House of Representatives; now, therefore be it

Resolved, That the Indiana State Medical Association reorganize the Board of Trustees and its Districts providing that:

1) The number of Districts equal the number of qualified delegates to the AMA (currently six).

2) Each District of the ISMA elect two trustees and alternate trustees to form a new Board of Trustees (which currently would be 12).

3) These changes do not affect the other constitutionally established members of the Board of Trustees (i.e. immediate past president, president, president-elect, treasurer and assistant treasurer).

4) Reapportionment be completed within one year of any adjustment in the number of AMA delegates but in no event less than every 10 years.

5) In no event shall the integrity of a component Society be divided through representation by two or more Districts.

6) The number of physicians represented by Districts shall be as nearly equal as possible and in no event shall a District represent fewer than 75% of the number of members represented by any other District.

7) Should application of this formula dictate, a combination of contiguous component societies may be designated a double District and elect four trustees and alternate trustees accordingly.

8) Comparable allocations be applied to all commissions and committees of the ISMA.

9) Amendments to the ISMA Constitution and Bylaws be drafted for final adoption at the 1983 House of Delegates to reflect these changes.

Resolution 82-14

Introduced by: Board of Trustees
Subject: Structure of the Executive Committee
Referred to: Reference Committee 2
ACTION: Adopted and referred to the Board of Trustees to study the functions of the Executive Committee and report to the 1983 House.

Whereas, Resolution 81-1 was referred to the Board of Trustees; and

Whereas, The Board, after study of the Executive Committee structure, has adopted the following recommendations for the House of Delegates to consider:

1. That the Executive Committee continue to be composed of seven voting members, but that the two at large members be members of and elected by the Board of Trustees;

2. Under this modified arrangement the Executive Committee would be composed as follows: president, president-elect, chairman of the Board, treasurer, the assistant treasurer, with the power to vote in the absence of the treasurer, immediate past president and two at large members from the Board;

3. The speaker and vice speaker would continue to be ex-officio members of the Executive Committee, without power to vote; and

Whereas, The composition of the Executive Committee is provided in 5.0601 of the decimalized version of the Bylaws; now, therefore be it

Resolved, That these recommendations be accepted by the House and 5.0601 of the Bylaws be so modified to reflect these recommendations.

Resolution 82-15

Introduced by: Board of Trustees
Subject: Honorary Membership for Dr. Robert O. Yoho
Referred to: Reference Committee 5
ACTION: Adopted.

Whereas, Dr. Robert O. Yoho has served the people of Indiana for 41 years having begun his career with the Indiana State Board of Health in the summer of 1941; and

Whereas, During the course of his distinguished career he has been closely involved with state government and its officials, legislators, physicians, nurses and others in upgrading public health in Indiana; and

Whereas, He has, additionally, been a consultant to commissions and committees of the Indiana State Medical Association, wherein his knowledge of legislative and public health issues has been sought and appreciated; and

Whereas, For his numerous contributions to the health environment he has been recognized as a Sagamore of the Wabash and has received honor awards from such organizations as the Indiana Rehabilitation Association; the Society of Directors of Health, Physical Education and Recreation; the American Heart Association, Indiana Division; the American Association of Health, Physical Education and Recreation; the American Dental Association; the Indiana Public Health Association and others; and

Whereas, Dr. Yoho, who is retiring from his post as Deputy Commissioner for Administration, is a native Hoosier, and has committed his entire career to the betterment of Hoosier health and quality of life; now, therefore be it

Resolved, That Dr. Robert O. Yoho, for rendering meritorious service to the people of Indiana and to the medical profession, be accepted into the ranks of the Indiana State Medical Association as an honorary member.

Resolution 82-16

Introduced by: Lake County Medical Society
Subject: Membership on the Blue Shield Board
Referred to: Reference Committee 4
ACTION: Not adopted.

Whereas, The ISMA was instrumental in establishing the Blue Shield Company of Indiana for the good of the patients and the better relationship between the physicians and their patients; and

Whereas, The recent decisions by the Blue Shield Company of Indiana to establish the VIP Program has resulted in alienation between the patients and their doctors and the elimination of the free choice of a physician; now, therefore be it

Resolved, That the ISMA forbids any one of its members who holds any office in ISMA or its member societies to be a member of the Blue Shield Board or Fee Review Committees.

Resolution 82-17

Introduced by: Dwight W. Schuster, M.D.

Subject: J.C.A.H. Proposals

AND

Resolution 82-18

Introduced by: Howard County Medical Society

Subject: Joint Commission on Hospital Accreditation

Referred to: Reference Committee 6

ACTION: Adopted the amended, combined resolutions

Resolved, That in the ultimate of patient care, the physician (a person who holds an unlimited license to practice medicine) must be responsible for overall patient care including the history, physical, diagnosis and treatment plan; and be it further

Resolved, That the ISMA through its House of Delegates go on record as opposing those JCAH proposals contradictory to this; and be it further

Resolved, That, because of the urgency of this matter, this *opposition* to JCAH relegating the medical staff of a hospital to just a unit of the professional staff, be transmitted at the earliest possible time to the representatives of the AMA to the JCAH for their information and the support of this resolution.

Resolution 82-19

Introduced by: Marion County Medical Society

Subject: Ad Hoc Committee to Reduce Drunk Driving

Referred to: Reference Committee 5

ACTION: Adopted.

Whereas, Alcohol plays a significant role in over 50% of fatal automobile accidents; and

Whereas, 80% of fatal automobile accidents occur between the hours of 8 p.m. and 8 a.m., placing at greater risk individuals such as physicians whose work requires travel during these hours; and

Whereas, The problem of drunk driving and the need to reduce its risks has been recognized by the state of Indiana and its governor in the appointment of the Governor's Task Force to Reduce Drunk Driving; and

Whereas, The reduction of drunk driving is an identified need for the prevention of injury, loss of life and unneeded expense which requires the concern of organized medicine; now, therefore be it

Resolved, That the Indiana State Medical Association Board of Trustees establish an Ad Hoc Committee to Reduce Drunk Driving to investigate and support in conjunction with appropriate concerned bodies the mechanisms by which the medical profession may participate in programs and/or legislation with the goal to eliminate the problem of drunk driving.

Fiscal Note: $300 per Ad Hoc Committee meeting.

Resolution 82-20

Introduced by: Fort Wayne Medical Society

Subject: Cost Containment—Indemnity Insurance

Referred to: Reference Committee 4

ACTION: Adoption of Substitute Resolution.

Resolved, That the ISMA House of Delegates request the private health insurance industry to offer to group employers both indemnity insurance and first-dollar coverage, suggesting that the additional premium for the first-dollar coverage be the responsibility of the insured individual. Further, that the ISMA House of Delegates encourage the private health insurance industry and the ISMA to work together to provide cost-conscious quality medical care to the people of Indiana in order to preserve the third-party payment system.

Resolution 82-21

Introduced by: Deleware/Blackford County Medical Society

Subject: Flexible Internship

Referred to: Reference Committee 4

ACTION: Adopted.

Whereas, The traditional year of Graduate Medical Education (Flexible Internship) is a vital part of medical education; and

Whereas, These programs both provide a necessary transitional year between medical school and specialized training and a successful method of exposing housestaff to different areas of Indiana; and

Whereas, There is presently a move to change the requirements for institutions providing a transitional (flexible) year of graduate medical education which will severely limit the number of institutions that will qualify; now, therefore be it

Resolved, That the House of Delegates of the Indiana State Medical Association go on record as supporting the concept of not changing the requirements for a transitional year to a degree that would cause a significant number of presently accredited programs to lose their accreditation; and be it further

Resolved, That this concern be presented in resolution form by the Indiana delegation to the AMA House of Delegates for their discussion and concurrence.

Resolution 82-22

Introduced by: ISMA Board of Trustees

Subject: Health Insurance Participation Agreements

Referred to: Reference Committee 1

ACTION: Adopted, Amended Substitute Resolution (Roll Call Vote)

Resolved, That ISMA pursue *all* avenues, including litigation if necessary, regarding our opposition to health insurance programs requiring participation agreements; and be it further

Resolved, That ISMA establish a fund designated for use by the Board of Trustees for promotion of medical philosophy and principles; and be it further

Resolved, That ISMA dues be increased by $25 per year for the next two years, after which time the program will be reevaluated by the House of Delegates.

Resolutions

Presidential Resolution

ACTION: Adopted by acclamation

Whereas, Martin J. O'Neill, M.D., has diligently and unselfishly devoted his time and energy to the good of the Association in the performance of his duties as president during the past year—many times at great sacrifice to family and self; and

Whereas, He has maintained an exhaustive and demanding schedule of appearances before the membership throughout the state giving true meaning to a responsive, representational leadership; and

Whereas, He has made himself readily available on numerous occasions to the ISMA staff, business and industry leaders, legislators, and many others to pursue the business of the Association, and

Whereas, He has served as an effective spokesperson for the Association to present a unified voice for organized medicine at the state and national level, facing the formidable pressures of outside influences; now, therefore be it

Resolved, That this House of Delegates express its heartfelt appreciation to Martin J. O'Neill, M.D., and wish him every success in all future endeavors.

Resolution to Staff and Others

ACTION: Adopted by acclamation.

Whereas, The very successful and productive 133rd annual convention of the Indiana State Medical Association is drawing to a close; and

Whereas, The entire staff of the ISMA has worked untiringly to complement the efforts of the Commission on Convention Arrangements in organizing and implementing the many activities and events of the convention; and

Whereas, The long-range planning of the meeting was accomplished in a spirit of cooperation between ISMA staff, the Commission on Convention Arrangements and the staff of the Holiday Inn North; and

Whereas, Invaluable assistance was provided by the ISMA Auxiliary; State Board of Health; Indianapolis Convention Bureau; Technical Exhibitors, who supported the continuing medical education programs at the convention; now, therefore be it

Resolved, That this House of Delegates, on behalf of the entire membership, express its appreciation to the Commission on Convention Arrangements, ISMA staff, ISMA Auxiliary, State Board of Health, Indianapolis Convention Bureau, Technical Exhibitors, and the staff of the Holiday Inn North for their contribution to the success of the 1982 convention.

Memorial Resolution

Introduced by: Fort Wayne Medical Society

ACTION: Adopted by acclamation.

Whereas, Francis L. Land, M.D. practiced medicine as a member of this Association from 1952 to 1966 before leaving for a position with the Department of HEW; and

Whereas, He helped develop the Medicaid Program; and

Whereas, He also developed the Family Practice Residency for the University of Nebraska, University of New Mexico and Georgetown University from 1968 to 1980; and

Whereas, He was a statesman for Indiana medicine through all these years having been a founder of the Indiana Academy of Family Practice and having served on the House of Delegates of the AMA for many years, serving nine years on the Council of Medical Education and other jobs too numerous to mention; and

Whereas, He has been removed from our midst; now, therefore be it

Resolved, That Dr. Land be recognized for his myriad contributions to organized medicine through this resolution from the 12th District and from the Fort Wayne-Allen County Medical Society and that this resolution be presented to the October 1982 Indiana State Medical Association meeting of the House of Delegates for full consideration and that his wife Dottie and his children receive a copy of this resolution as recognition for his many accomplishments and to show our professional gratitude.

Resolution of Commendation

Introduced by: Allen County Medical Society and Twelfth District Medical Society

Subject: Honorary Membership in ISMA for Howard Grindstaff

ACTION: Adopted by acclamation.

Whereas, Howard Grindstaff has served as field representative for the Indiana State Medical Association for nearly 25 years; and

Whereas, He has served the ISMA and its members as an effective lobbyist to the Indiana General Assembly; and

Whereas, He has been a driving force in the development of the Indiana Medical Political Action Committee; and

Whereas, For a number of years Howard was forced to cover geographical areas far in excess of one man's abilities; and

Whereas, He has always been totally accessible and as close as the phone; and

Whereas, No county society was too small or distant from Indianapolis for him to attend meetings; now, therefore be it

Resolved, That the physicians of the Twelfth District Medical Association extend a warm note of thanks and commendation to Howard D. Grindstaff for his unfailing services to the physicians of Indiana for the past nearly 25 years; and be it further

Resolved, That Howard D. Grindstaff be appointed an honorary member of the Indiana State Medical Association.

OBITUARIES

Laddie H. Kornafel, M.D.

Dr. Kornafel, 77, a retired Indianapolis thyroid surgeon, died Aug. 11 at Community Hospital, Indianapolis.

He was a 1932 graduate of Indiana University School of Medicine.

Dr. Kornafel, who retired two years ago, was a fellow of the International College of Surgeons and a member of the American Thyroid Association.

Adolph Goldstone, M.D.

Dr. Goldstone, 72, a Gary physician, died Aug. 16 at Methodist Hospital, Merrillville.

He was a 1935 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Goldstone was a member of the staff of St. Mary Medical Center for 25 years and was a past president of the Methodist Hospital medical staff.

Jeane T. Waldo, M.D.

Dr. Waldo, 82, Indianapolis, died Aug. 18.

He was a 1934 graduate of Indiana University School of Medicine.

Stanley H. Kryszek, M.D.

Dr. Kryszek, 64, a retired Indianapolis physician, died Aug. 26 at his home.

He received his M.D. degree in 1942 from the University of Edinburgh, Scotland. A native of Poland, he had lived in Indianapolis 10 years.

Dr. Kryszek was a member of the Industrial Medical Association and was certified by the American Board of Preventive Medicine.

Robert D. Fry, M.D.

Dr. Fry, 74, an Indianapolis surgeon who retired in April, died Sept. 19 at Methodist Hospital, Indianapolis.

He was a 1936 graduate of the University of Louisville School of Medicine and was an Army veteran of World War II.

Dr. Fry was a member of the International College of Surgeons and of the American Society of Abdominal Surgeons.

Merle E. Whitlock, M.D.

Dr. Whitlock, 81, a retired Mishawaka surgeon, died Sept. 2 in Littleton, Colo.

He was a 1929 graduate of Indiana University School of Medicine.

Dr. Whitlock, a World War II Army veteran, was a former ISMA delegate and was a member of the ISMA Fifty Year Club.

James J. McClain



Mr. McClain, 32, vice-president of McClain Car Leasing, Inc., Anderson, died June 18. Advertisements for McClain Car Leasing have appeared regularly in THE JOURNAL for several years.

Mr. McClain, who died at St. John's Medical Center in Anderson, was well known to many ISMA physicians. He had been a lifelong resident of Anderson and had been associated with McClain Car Leasing for more than 10 years.

E. Briscoe Lett, M.D.

Dr. Lett, 72, a retired Loogootee physician, died Sept. 23 at Daviess County Hospital, Washington.

He was a 1934 graduate of the University of Louisville School of Medicine and was an Army veteran of World War II.

Dr. Lett, a former Loogootee city health officer, was both a Sagamore of the Wabash and a Tennessee Squire.

Victor S. Huggins, M.D.

Dr. Huggins, 75, a retired Evansville physician, died Sept. 24 at Central DuPage Hospital, Winfield, Ill.

He was a 1933 graduate of Harvard Medical School.

Dr. Huggins was a diplomate of the American Board of Obstetrics and Gynecology and was a fellow of the American College of Surgeons. In 1948 he was featured in "Who's Who in the Midwest."

Robert L. Harris, M.D.

Dr. Harris, 49, an Evansville physician, died Sept. 3 at St. Mary's Medical Center, Evansville.

He was a 1957 graduate of Indiana University School of Medicine. He served in the Army for two years.

Dr. Harris was spokesman for the Vanderburgh County Medical Society on WFIE-Channel 7's "Health Scope" program at the time of his death. He was a former president of the medical staff at St. Mary's Medical Center. He helped organize the Ohio Valley Hospice and was elected to its first board of directors. He was certified by the American Board of Family Practice and was a fellow of the American Academy of Family Physicians.

Franklin B. Peck, Sr., M.D.

Dr. Peck, 84, a retired Indianapolis physician who became internationally known for diabetes and insulin research, died Sept. 22 in Tucson, Ariz.

He was a 1923 graduate of Jefferson Medical College, Philadelphia.

Dr. Peck, who joined Eli Lilly and Company in 1935, was director of the firm's International Clinical Research Division when he retired in 1961. He was a former president of the American Diabetes Association and was awarded the Fredrick Banting Memorial Medal in 1962 for his contributions to the field of diabetes care.

Robert C. Bullers, M.D.

Dr. Bullers, 65, a Franklin surgeon, died Sept. 19 at Johnson County Memorial Hospital in Franklin.

He was a 1948 graduate of the Long Island (N.Y.) College of Medicine, and was a U.S. Navy veteran.

Dr. Bullers had worked for the U.S. Public Health Service 10 years before moving to Franklin.

Abraham A. Brauer, M.D.

Dr. Brauer, 79, a retired Griffith physician, died Sept. 19 at Billings Hospital, Chicago.

He was a 1926 graduate of Rush Medical College, Chicago.

Dr. Brauer was a member of the ISMA Fifty Year Club.

CME QUIZ

Attention Deficit Disorder

CONTINUED FROM PAGES 861-864

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. In the past, ADD has been called _____.
   a) Hyperactive Child Syndrome
   b) Minimal Brain Dysfunction (MBD)
   c) Minor Cerebral Dysfunction
   d) All of the above
2. Prevalence of ADD in the U.S. at present is estimated to be _____.
   a) Between 10-20% of school age children
   b) Between 3-10% of school age children
   c) Between 0.9-2% of school age children
   d) About 1.5% of non-retarded psychiatric clinic attenders
3. All of the following statements are true about ADD except _____.
   a) There are some children with definite brain damage who show no abnormalities on clinical neurological examination.
   b) Brain injury can lead to psychiatric abnormalities even when there are no discernible neurological sequelae.
   c) Evidence support for the notion that a very mild brain injury causes psychiatric or intellectual problems.
   d) Brain damage does greatly increase the psychiatric risk, but for this to happen it seems that the damage must be of some severity.
4. In ADD children, the following are commonly seen except _____.
   a) Poor peer relationship, distractibiltiy and clumsiness
   b) Hyperkinesis, hallucination and bizarre behavior
   c) Soft neurological signs, perseveration and specific learning disability
   d) Poor self-image, impulsivity and conduct disorder
5. All of the following statements are true about ADD except _____.
   a) Several studies in the United States have shown relatively low levels of agreement among parents, teachers, and clinicians on which children should be regarded as hyperkinetic.
   b) Different measures of hyperactivity intercorrelate quite weakly in that there is only rather modest agreement between different questionnaires that purport to measure hyperactivity.
   c) It has proved very difficult to obtain any questionnaire measure of overactivity that does not also correlate highly with measures of general conduct disorders.
   d) The evidence available to date provides firm support for the notion of ADD as an etiologically homogeneous entity.
6. DSM-III diagnostic criteria for ADD with hyperactivity lists behavioral descriptions for INATTENTION. The following are examples of a child's behavior except _____.
   a) Often fails to finish things he or she starts.
   b) Often doesn't seem to listen.
   c) Often tells tall tales which he or she believes.
   d) Has difficulty sticking to a play activity.
7. DSM-III diagnostic criteria for ADD with hyperactivity states the following except _____.
   a) When the reports of teachers and parents conflict, primary consideration should be given to the parents' report because of greater familiarity with age appropriate norms.
   b) Because the symptoms are typically variable, they may not be observed directly by the clinician.
   c) Onset before the age of 7
   d) Is always "on the go" or acts as if "driven by motor."

November CME Quiz Answers

Following are the answers to the CME quiz that appeared in the November 1982 issue of THE JOURNAL: "Melanoma," by James E. Bennett, M.D., et al:

1. c	6. c
2. b	7. b
3. a	8. d
4. d	9. c
5. b	10. a

CONTINUED ON PAGE 892

Answer sheet for Quiz: (Attention Deficit Disorder . . .)

1. a b c d	6. a b c d
2. a b c d	7. a b c d
3. a b c d	8. a b c d
4. a b c d	9. a b c d
5. a b c d	10. a b c d

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type) _____

Address _____

_____

_____

_____

Identification number (found above your name on mailing label) _____

Signature _____

To be eligible for this month's quiz, send your completed, signed application before Jan. 10, 1983 to the address appearing at the top of this page.

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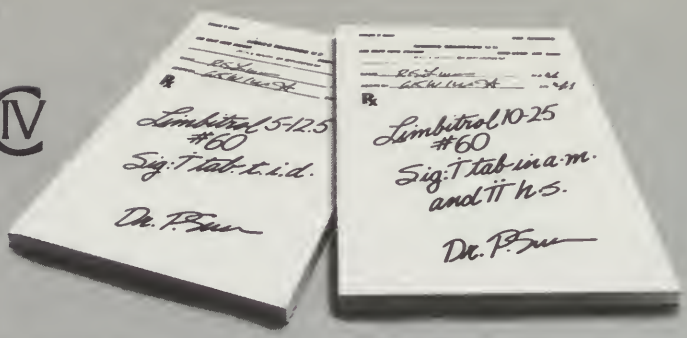
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Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)



In anxious depression,

SPECIFIC FOR THE NONPSYCHOTIC PATIENT

Fits the picture of anxiety/depression correlation

Most patients with a mood disorder have a mixture of anxiety and depression. One clinician[1] found a correlation of 0.7 in anxiety and depression scores; another[2] has estimated that 7 of 10 nonpsychotic depressed patients are also anxious. For the dual symptomatology of anxious depression, Limbitrol provides dual medication.

More appropriate for the nonpsychotic depressed and anxious patient

Limbitrol contains both amitriptyline, specific for symptoms of depression, and a benzodiazepine, specific for the symptoms of anxiety. Thus it is a better choice than other dual agents for anxious depression that contain a phenothiazine, a class of antipsychotic drugs less specific for anxiety and now generally avoided in nonpsychotic patients.[2,3]

Avoids the risk of tardive dyskinesia carried by the phenothiazine combinations

The causal relationship between the phenothiazines and other extrapyramidal side effects, including tardive dyskinesia, is well established. In contrast, the reported incidence of these adverse reactions with Limbitrol or either of its components is rare.

References: 1. Cloghorn J: *Psychosomatics 11*:438-441, Sept-Oct 1970. **2.** Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, edited by Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. **3.** Baldessarini RJ, Tarsy D: Tardive dyskinesia, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascio A, Killam KF. New York, Raven Press, 1978, p. 999.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: **Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated. sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

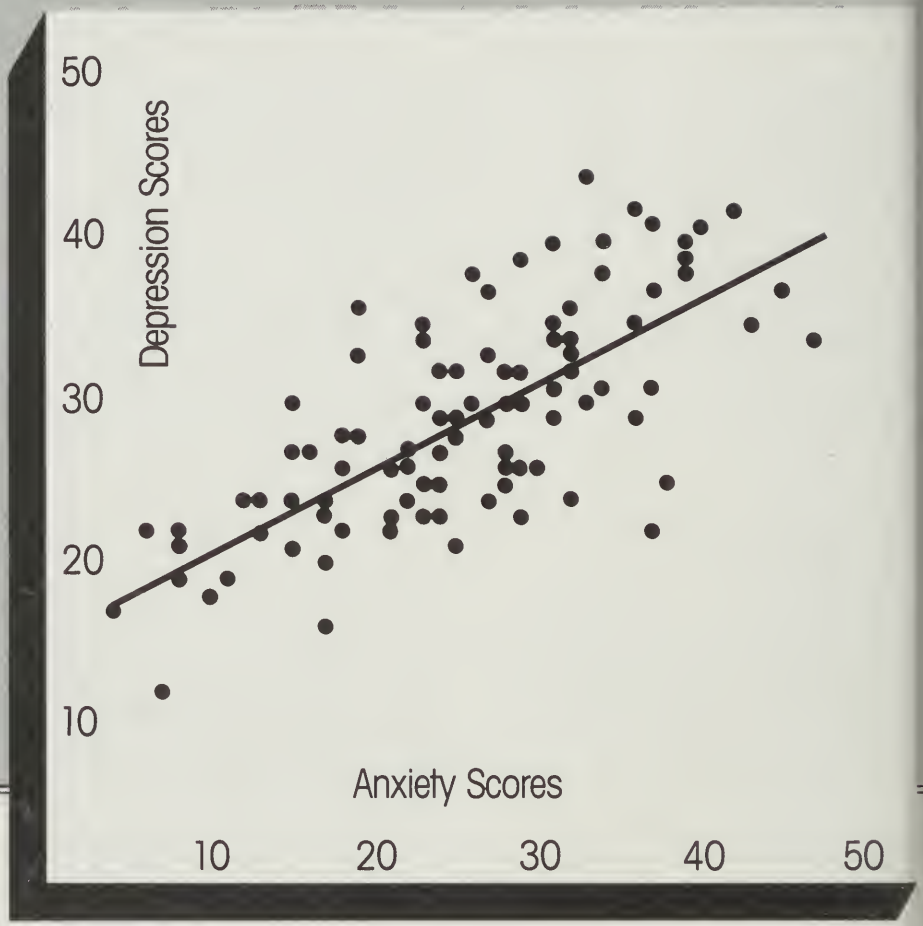
How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.

ROCHE®

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Manati, Puerto Rico 00701

MORE DEPRESSION MEANS MORE ANXIETY...

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The graph illustrates the close correlation between depression and anxiety derived through the MMPI and the Taylor Manifest Anxiety Scale in 100 nonpsychotic psychiatric patients. The Coefficient of Correlation is 0.7. As depression increased, so did the anxiety levels.
—Adapted from Claghorn J[1]

A key reason why

MORE PHYSICIANS ARE CHOOSING LIMBITROL®

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

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1. Claghorn J: *Psychosomatics 11*:438-441, Sept-Oct 1970

Please see summary of product information on inside cover.

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